

**U.S. Environmental Protection Agency
Region V
Waste Management Division**



**Volume
1 of 21**

U.S. EPA SUPPLEMENTAL ADMINISTRATIVE RECORD
NL INDUSTRIES/TARACORP SITE
GRANITE CITY, ILLINOIS

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF ILLINOIS

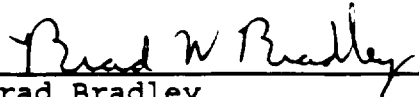
| | | |
|--------------------------------------|---|-----------------------|
| UNITED STATES OF AMERICA, |) | |
| |) | |
| Plaintiff, |) | |
| |) | C.A. No. 91-CV578-JLF |
| v. |) | |
| |) | |
| NL INDUSTRIES, INC., <u>et al.</u> , |) | |
| |) | |
| Defendants, |) | |
| |) | |
| and |) | |
| |) | |
| CITY OF GRANITE CITY, ILLINOIS, |) | |
| LAFAYETTE H. HOCHULI, and |) | |
| DANIEL M. McDOWELL |) | |
| |) | |
| Intervenor-Defendants |) | |
| |) | |

CERTIFICATION OF
SUPPLEMENTAL ADMINISTRATIVE RECORD

I, Brad Bradley, certify under penalty of perjury as follows:

1. I am a Project Manager with the United States Environmental Protection Agency ("U.S. EPA").
2. In the performance of my duties as Project Manager I have reviewed and/or compiled the documents in the attached Supplemental Administrative Record for the NL Industries/Taracorp Superfund Site ("the Site") in Granite City, Illinois.
3. To the best of my knowledge, the documents contained within this Supplemental Administrative Record, in addition to the documents contained in the original Administrative Record previously certified to the Court, constitute the entirety of documents developed or received by U.S. EPA for the Site in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9601 et seq., and the National Contingency Plan, 40 C.F.R. Part 300, that were relied upon or considered by U.S. EPA in the selection of response actions for this Site, including the selection of the remedial action, which is

embodied in a Record of Decision signed by the Regional Administrator for U.S. EPA Region V on March 30, 1990, and a Decision Document/Explanation of Significant Differences signed by the Regional Administrator for U.S. EPA Region V on September 29, 1995.


Brad Bradley
Project Manager

Date: 10/12/95



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF

JUN 25 1990

SPECIAL NOTICE LETTER FOR REMEDIAL DESIGN/REMEDIAL ACTION (RD/RA)
URGENT LEGAL MATTER—PROMPT REPLY NECESSARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: NL Industries/Taracorp Site
Granite City, Illinois

Dear Sir or Madam:

This letter follows a general notice letter that was issued on November 28, 1989, in connection with the above-referenced site. As the listed contact person for the potentially responsible party (PRP) identified above, this letter has been sent to your attention.

This letter serves three basic functions. First, it contains a formal demand for reimbursement of costs that have been incurred, including interest thereon, and that are expected to be incurred, which are subject to interest, in response to the health and environmental concerns at the site. Second, this letter notifies you that a 60-day period of formal negotiations with the Environmental Protection Agency (EPA) automatically begins with this letter. Third, this letter provides general and site-specific information to assist you in these negotiations.

NOTICE OF POTENTIAL LIABILITY

As indicated in the general notice letter previously sent regarding this site, EPA has information indicating that you may be a PRP as defined at Section 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9607(a), as amended (CERCLA), with respect to this site.

SPECIAL NOTICE AND NEGOTIATION MORATORIUM

EPA has determined that use of the Section 122(e) special notice procedures specified in CERCLA will facilitate a settlement between EPA and PRPs for this site. Therefore, under CERCLA section 122, this letter triggers a 60-

day moratorium on certain EPA response activities at the site. During this 60-day period, the PRPs, including you, are invited to participate in formal negotiations with EPA. You are also encouraged to voluntarily negotiate a settlement providing for the PRPs, including yourself, to conduct or finance the response activities required at this site. The 60-day negotiation period ends on August 31, 1990. The 60-day negotiation moratorium will be extended for an additional 60 days if EPA determines the PRPs have provided EPA with a good faith offer to conduct or finance the remedial design/remedial action (RD/RA). Should a 120-day negotiation moratorium take place, negotiations will conclude on October 30, 1990. If settlement is reached between EPA and the PRPs within the 120-day negotiation moratorium, the settlement will generally be embodied in a consent decree.

FUTURE RESPONSE ACTIONS

EPA plans to conduct the following response activities at the site:

- Design and implementation of the remedial action selected and approved by U.S. EPA for the site; and
- Provision of any monitoring, operation and maintenance necessary at the site after the remedial action is completed.

WORKPLAN AND DRAFT CONSENT DECREE

A copy of EPA's Record of Decision as well as Scope of Work and draft consent decree comprise Attachments I, II, and III to this letter, respectively. This is provided to assist you and other PRPs in developing a good faith offer for conducting the RD/RA.

GOOD FAITH OFFER

As indicated, the 60-day negotiation moratorium triggered by this letter is extended for 60 days if the PRPs submit a good faith offer to EPA. A good faith offer to conduct or finance the RD/RA is a written proposal that demonstrates the PRPs' qualifications and willingness to conduct or finance the design, implementation, and monitoring of the remedy. In order for your proposal to be considered a good faith offer, it must not be significantly different from EPA's Record of Decision and must include the following elements:

1. A statement of willingness by the PRPs to conduct or finance the RD/RA which is consistent with EPA's Record of Decision as well as Scope of Work and draft consent decree and provides a sufficient basis for further negotiations.
2. An element by element response to EPA's Record of Decision as well as Scope of Work and draft consent decree including a response to any other attached documents.

3. A detailed description of the work plan identifying how the PRPs plan to proceed with the work. The work plan shall be based on an RD/RA implementation schedule which will complete work within approximately 3 1/2 years from the approval of the RD/RA work plan.
4. A demonstration of PRPs' technical capability to carry out the RD/RA including the identification of the firm(s) that may actually conduct the work or a description of the process they will use to select the firm(s).
5. A demonstration of the PRPs' willingness to finance the response.
6. A statement of willingness by the PRPs to reimburse EPA for costs incurred in overseeing the PRPs' conduct of the RD/RA.
7. The name, address, and phone number of the party or steering committee who will represent the PRPs in negotiations.
8. A description of the PRPs' position on releases from liability and reopeners to liability.

INFORMATION RELEASE

The parties are hereby notified that additional information has been obtained since the previous notice. EPA is providing the following information as attachments to this letter.

1. An updated list of names and addresses of PRPs to whom this notification is being sent. Inclusion on, or exclusion from, the list does not constitute a final determination by EPA concerning the liability of any party for the release or threat of release of hazardous substances at the site (Attachment IV).
2. A list of the weight of substances contributed by each PRP. This list is subject to revisions based upon new information as, and if, it becomes available (Attachment V).

DEMAND FOR PAYMENT

With this letter, EPA demands that you reimburse EPA for its costs incurred to date, and encourages you to voluntarily negotiate a consent decree in which you and other PRPs agree to perform the RD/RA.

In accordance with CERCLA, EPA already has undertaken certain actions and incurred certain costs in response to conditions at the site. These response actions are described in Attachment VI to this letter. The cost to date of the unreimbursed response actions performed at the site through EPA funding does not exceed \$75,000 as of May 31, 1990. In accordance with Section 107(a) of CERCLA, demand is hereby made for payment of the above amount plus any and all interest recoverable under Section 107 or under any other provisions of law.

As indicated above, EPA anticipates expending additional funds for the Remedial Design and Remedial Action (RD/RA). Whether EPA funds the entire RD/RA, or simply incurs costs by overseeing the parties conducting these response activities, you are potentially liable for these expenditures plus interest. The U.S. EPA would like to schedule a meeting with the PRPs to facilitate negotiations.

PRP STEERING COMMITTEE

EPA recommends that all PRPs meet to select a steering committee responsible for representing the group's interests. Establishing a manageable group is critical for successful negotiations with EPA. Alternatively, EPA encourages each PRP to select one person from its company or organization who will represent its interests. The U.S. EPA would like to schedule a meeting with the PRPs to facilitate negotiations. The meeting is scheduled for 9:30 a.m. July 18, 1990 at the Americana Congress Hotel, 520 South Michigan Avenue, Chicago, Illinois (phone-312/427-3800).

ADMINISTRATIVE RECORD

Pursuant to CERCLA Section 113(k), EPA must establish an administrative record that contains documents that form the basis of EPA's decision on the selection of a response action for a site. The administrative record files, which contain the documents related to the response action selected for this site, are available to the public for inspection and comment and are located at the U.S. EPA-Region V offices and the Granite City Public Library, 2001 Delmar Avenue, Granite City, IL 62040 contact: Robert Stack.

PRP RESPONSE AND EPA CONTACT PERSON

You have 60 calendar days from this notice to provide EPA, in writing, with a good faith offer demonstrating your willingness to perform the RD/RA. You may respond individually or through a steering committee if such a committee has been formed. If EPA does not receive a timely response, EPA will assume that you do not wish to negotiate a resolution of your liabilities in connection with the response, and that you have declined any involvement in performing the response activities. You may be held liable by EPA under Section 107 of CERCLA for the cost of the response activities EPA performs at the site and for any damages to natural resources.

Your response to this notice letter should be sent to:

Brad Bradley (SHS-11)
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 886-4742

By copy of this letter, EPA is notifying the State of Illinois and the Natural Resources Trustees, in accordance with Section 122(j) of CERCLA, of its intent to enter into negotiations concerning the implementation of remedial action at the site, and is also encouraging them to consider participation in such negotiations.

The factual and legal discussions contained in this letter are intended solely for notification and information purposes. They are not intended to be and cannot be relied upon as final EPA positions on any matter set forth herein.

If you or your attorney have any questions pertaining to this matter, please direct them to Steve Siegel at (312) 353-1129.

Sincerely,



John Kelley, Acting Chief
Remedial and Enforcement Response Branch

Attachments

cc: Sheila Huff, DOI
William Seith, Assistant Attorney General
Steve Davis, IEPA
Mark Frech, IDOC
Don Etchison, IDENR
Don Vonnahme, IDOT

bcc: S. Siegel, 5CS-TUB-03
B. Kush, IL/IN #3
Tai Ming Chang, OWPE

ATTACHMENT I

RECORD OF DECISION
NL INDUSTRIES/TARACORP SITE

GRANITE CITY, ILLINOIS

ATTACHMENT II

**SCOPE OF WORK
NL INDUSTRIES/TARACORP SITE**

GRANITE CITY, ILLINOIS

ATTACHMENT III
DRAFT CONSENT DECREE
NL INDUSTRIES/TARACORP SITE
GRANITE CITY, ILLINOIS

ATTACHMENT IV

The names and addresses of all parties receiving a copy of this letter are attached.

CURRENT NL PRP GROUP STEERING COMMITTEE

Mr. Dennis Reis
Sidley & Austin
One First National Plaza
Suite 4700
Chicago, Illinois 60603
Phone: (312) 853-2659

Mr. Steven Tasher
Wilkie Farr & Gallagher
Three LaFayette Center
1155 21st Street, N.W.
Suite 600
Washington, D.C. 20036-3302
Phone: (202) 429-4715

ATTACHMENT V

The ranking by weight of all parties listed in Attachment IV are attached.

ATTACHMENT VI

NL Industries, Inc. has conducted the following studies and/or activities at the site:

1. Remedial Investigation - to determine the nature and extent of contamination at the site.
2. Feasibility Study - to evaluate the feasibility of possible alternatives to remediate the Site contamination identified during the Remedial Investigation.
3. U.S. EPA released its Proposed Plan for the Site remediation on January 10, 1990.
4. U.S. EPA issued its Record of Decision for the Site remediation on March 30, 1990.

SCOPE OF WORK FOR THE REMEDIAL DESIGN AND REMEDIAL ACTION
AT
NL INDUSTRIES/TARACORP SITE
Granite City, Illinois

I. PURPOSE

The purpose of this Remedial Action at the NL Industries/Taracorp NPL Site ("the NL Site" or "the Site") is to implement the Record of Decision (ROD) for this Site which was signed by the Regional Administrator on March 30, 1990. The U.S. EPA Superfund Remedial Design and Remedial Action Guidance, the Final Record of Decision, the approved Remedial Design/Remedial Action (RD/RA) Work Plan, any additional guidance provided by U.S. EPA, and this Scope of Work (SOW) shall be followed in designing and implementing this Remedial Action at the Site. In the event of any inconsistency between this SOW and the Consent Decree, the Consent Decree shall govern. Term used herein shall have the same meaning as used in the ROD.

II. DESCRIPTION OF THE REMEDIAL ACTION TO BE CONDUCTED BY SETTLING DEFENDANTS

Settling Defendants shall perform the remedy described in the ROD. The remedy shall be designed, implemented, and maintained to achieve the standards set forth below. The standards and specifications of the major components of the remedial action for the Site that shall be designed and implemented by the Settling Defendants are:

Soil Sampling/Inspection

Soil lead sampling shall be conducted in Area 1 and all Residential Areas, as that term is defined in the Consent Decree, and includes, but is not limited to, areas 2-8, Eagle Park Acres, and Venice (ROD Figures 5, 6, 7) and immediately adjacent properties to determine the depth to which each individual residential yard must be excavated to achieve a 500 ppm soil lead cleanup level and the depth to which Area 1 must be excavated to achieve a 1000 ppm cleanup level.

Inspections of alleys and driveways and areas containing surficial battery case materials in Eagle Park Acres, Venice, Granite City, Madison, and other nearby communities shall be conducted to determine which specific areas not already identified in Figures 5, 6 and 7 of the ROD need remediation. EP toxicity sampling for lead shall be conducted for all areas identified through these inspections as well as all areas found in Figures 5, 6, and 7 of the ROD. Lead sampling of all identified areas which are not alleys or driveways shall be conducted to determine the depth to which such areas must be excavated to achieve a 500 ppm cleanup level. EP Toxicity sampling shall be conducted consistent with 40 CFR 261.24.

Taracorp Drums

All drums on the Taracorp pile (refer to ROD Figure 2.) shall be removed and transported to an off-site secondary lead smelter for lead recovery.

St. Louis Lead Recyclers piles SLIR Piles

All wastes contained in the SLIR piles (see ROD Figure 2) shall be consolidated into the Taracorp pile.

Alleys and Driveways in Venice and Eagle Park Acres

Based upon the FS and the inspections outlined above, battery case material shall be excavated from all alleys and driveways in Venice, Eagle Park Acres, and other nearby communities in which it has come to be located at or near the surface. Sampling for EP toxicity for lead shall be conducted in all affected areas prior to removal of the case material. All excavated material which is not EP toxic for lead shall be transported to the Taracorp pile for consolidation. All excavated material which is EP toxic for lead shall be transported to an off-site RCRA-compliant landfill or treated prior to placement in the Taracorp pile. Excavated areas shall be backfilled, if necessary, and paved.

Area 1

Based on the sampling outlined in the Soil Sampling/Inspection paragraph above, all unpaved portions of Area 1, including the material which is beneath the SLIR pile, with lead concentrations greater than 1000 ppm shall be excavated and consolidated with the Taracorp pile. The surfaces shall be restored with asphalt or sod, in accordance with present usage.

Residential Areas

Based on the sampling outlined in the Soil Sampling/Inspection paragraph above, an accurate mapping of all residential areas around the Site and in Eagle Park Acres, Venice, and other nearby communities with a lead concentration greater than 500 ppm shall be provided. All soils and battery case materials with lead concentrations greater than 500 ppm in each subunit of the Residential Areas, as approved by U.S. EPA, and as indicated on the map shall be excavated and consolidated with the Taracorp pile, with the exception of soils and battery case materials in Eagle Park Acres, Venice, and other nearby communities which are EP toxic for lead, which shall be transported to an off-site RCRA-compliant landfill or treated prior to placement in the Taracorp pile so that such materials are no longer EP toxic. The surfaces shall be restored in accordance with present usage. Every effort shall be made to remediate sensitive areas (school yards, playgrounds, areas with highest lead concentrations, etc.) first, and no trees or structures or large vegetation shall be removed.

Home Interior Inspection

During the excavation of each residential yard, an inspection of the interior of each home shall be conducted to identify possible sources of lead exposure. The results and recommendations of each inspection shall be provided to the appropriate residents.

Dust Control Measures

During all excavation, transportation, and consolidation activities conducted as part of the remedy, dust control measures shall be implemented as necessary to prevent the generation of visible emissions during these activities.

RCRA-Compliant Multimedia Cap

After all materials have been transported to and consolidated with the Taracorp pile, the consolidated pile shall be graded and capped with a RCRA-compliant, multimedia cap. Refer to Figure 8 for the cap configuration. The cap shall meet or exceed the requirements of RCRA Subtitle C, and Illinois State law.

Bottom Liner

With the exception of the existing Taracorp pile, a clay bottom liner shall be constructed on all areas upon which consolidated materials are to be placed as part of this remedy. Portions of this liner on Area 1 shall be constructed after Area 1 has been excavated to a 1000 ppm lead cleanup level.

Institutional Controls/Fencing

A fence shall be constructed in a manner sufficient to prevent access to the expanded Taracorp pile. Warning signs shall be posed at 200-foot intervals along the fence advising that the area is hazardous due to waste materials and soils beneath the cap which may pose a risk to public health.

Groundwater Monitoring

A minimum of one deep well upgradient from the expanded Taracorp Pile and three deep wells downgradient from the expanded Taracorp Pile shall be installed to monitor water quality in the lower portion of the upper aquifer. Monitoring of these wells and the 14 existing site wells shall be conducted semi-annually for a minimum of 30 years and analyses shall be performed for the full scan Hazardous Substance List, which is attached as Table 1. After four sampling events, consideration shall be given to

deleting parameters from the list which are below detection limits for all four events.

Air Monitoring

Air monitoring for lead and PM₁₀ (particulate matter less than 10 microns) shall be performed annually at a minimum of two locations adjacent to the site for a minimum of 30 years.

Cap Monitoring

For a minimum of 30 years, annual inspections of the cap shall be conducted to identify areas requiring repair. Appropriate maintenance shall be conducted immediately following the inspections.

Contingency Plans

Contingency Plans for air, groundwater and the cap/soil cover shall be developed to provide remedial action in the event that concentrations of contaminants in groundwater or lead or PM₁₀ in air exceed applicable standards or established action levels (as further detailed in section E. of Task I below) or that contaminated soils or waste materials have migrated to the surface or become releasable to the air in the future. Settling Defendants shall implement contingency plans in the event that concentrations of contaminants in groundwater or lead or PM₁₀ in air exceed applicable standards or established action levels (as further detailed in section E. of Task I below).

Other Contingency Measures

Development and implementation of contingency measures to provide for sampling and removal of any soils within the zone of contamination described by the soil lead sampling to be implemented above with lead concentrations above 500 ppm which are presently capped by asphalt or other barriers but become exposed in the future due to land use changes or deterioration of the existing use.

III. SCOPE

Settling Defendants shall prepare and submit to U.S. EPA for approval a RD/RA Work Plan which shall document the steps to be taken to implement the design, construction, operation and maintenance of the remedy. The Settling Defendants are responsible for the timely implementation of the RD/RA Work Plan. The RD/RA work plan shall include all elements described above and in the ROD.

The RD/RA Work Plan shall consist of two tasks, the schedule for submittal and review of which is delineated in paragraphs 13 and 14 of the Consent Decree:

Task I: RD/RA Work Plan

- A. Statement of Work to be Performed
- B. Quality Assurance Project Plan and Sampling and Analysis Plan
- C. Home Inspection and Fugitive Dust Control Plan
- D. A Plan for Satisfaction of Permitting and Access Requirements
- E. Air, Groundwater, and Soil Cover/Cap Contingency Plans
- F. A Plan for Other Contingency Measures

Task II: Remedial Design

- A. Design Plans and Specifications
- B. Cost Estimate
- C. Project Schedule
- D. Construction Quality Assurance Plan
- E. Health and Safety Plan/Emergency Contingency Plan

Task I: RD/RA WORK PLAN

The Settling Defendants shall prepare a Work Plan which shall document the overall management strategy for performing the design, construction, operation, maintenance and monitoring of Remedial Actions. The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation. The Work Plan shall also include a description of qualifications of key personnel directing the RD/RA, including contractor personnel.

A. Statement of Work to be Performed

The Settling Defendants shall develop a concise Statement of Work to be performed which is consistent with the Record of Decision and the Description of the Remedial Action of this SOW.

B. Quality Assurance Project Plan (QAPP) and Sampling and Analysis Plan (SAP)

The Settling Defendants shall develop a QAPP and a SAP which shall be prepared in accordance with U.S. EPA's "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans," (QAM-005/80) and subsequent amendments to such guidelines and shall outline, for all sampling except blood lead sampling which shall be conducted as part of this remedial action, numbers and locations of all samples to be taken, sampling, shipping, and analytical methods and procedures to be implemented, and quality assurance procedures to be used.

C. Home Inspection and Fugitive Dust Control Plan

The settling Defendants shall develop a Home Inspection and Fugitive Dust Control Plan which shall outline, at a minimum, qualifications of personnel involved, methods to be employed to control visible emissions of fugitive dust, corrective measures to be implemented in the event that visible

emissions are observed, the approach to be taken for inspection of the interiors of homes, and to determine all possible sources of lead exposure in the homes, sampling, if any, and analytical procedures to be employed, how recommendations shall be developed and provided to the residents, actions, if any, to be taken based on the recommendations.

D. A Plan for Satisfaction of Permitting and Access Requirements

The Settling Defendants shall develop a plan which shall outline and include, at a minimum, a comprehensive list of all permits required in conjunction with the remedial action, procedures and estimated time frames for acquiring required permits, procedures and methods to be implemented to ensure compliance with permitting requirements, a list of all properties to which access will be required in conjunction with the remedial action, sample access agreements for inspection soil sampling, and excavation activities, procedures and estimated time frames for acquiring required access, and procedures and methods to be implemented to obtain access and to follow up when access is not obtained.

E. Air, Groundwater, and Soil Cover/Cap Contingency Plans

The Settling Defendants shall develop a plan which shall outline and include, at a minimum, a list of all statistical methods and action levels to be used to determine when the air and groundwater contingency plans shall go into effect. Action levels shall include, whenever possible, (NAAQs for Lead and PM₁₀, MCLGs, MCLs, Illinois General Use any other appropriate regulatory or statutory standard. Water Quality Standards,), and a Settling Defendants shall also develop a statement of the specific elements which shall comprise inspections to be performed on the soil cover/cap to ensure its integrity, and with specificity, the remedial actions to be employed in the event that concentrations of contaminants in groundwater or lead or PM₁₀ in air exceed established action levels or contaminated soils or waste materials have migrated to the surface or have become releasable to the air in the future.

F. Other Contingency Measures

The Settling Defendants shall design and implement contingency measures to provide for sampling and removal of any soils within the zone of contamination described by the soil lead sampling to be implemented above with lead concentrations above 500 ppm which are presently capped by asphalt or other barriers but become exposed in the future due to land use changes or deterioration of the existing use.

Task II: REMEDIAL DESIGN

The Settling Defendants shall develop and submit to U.S. EPA for approval final construction plans and specifications to implement the Remedial Actions at the facility as defined in the Purpose, and the Description of the Remedial Action of this SOW.

A. Design Plans and Specifications

The Settling Defendants shall develop and submit to U.S. EPA for approval clear and comprehensive design plans and specifications which include but are not limited to the following:

1. Discussion of the design strategy and the design basis, including;
 - a. Compliance with all applicable or relevant and appropriate environmental and public health standards; and
 - b. Minimization of environmental and public impacts.
2. The constructability of the design;
3. Description of assumptions made and detailed justification of these assumptions;
4. Discussion of the possible sources of error and references to possible operation and maintenance problems;
5. Detailed drawings of the proposed design;
6. Tables listing equipment and specifications;
7. Appendices including;
 - a. Sample calculations (one example presented and explained clearly for significant or unique design calculations);
 - b. Derivation of equations essential to understanding the report; and
 - c. Results of laboratory or field tests.

B. Cost Estimate

The Settling Defendants shall develop and submit to U.S. EPA for approval cost estimates for the purpose of assuring that the Settling Defendants have the financial resources necessary to construct and implement the Remedial Action. The cost estimate developed in the FS shall be refined to reflect the more detailed/accurate design plans and specifications being developed. The cost estimate shall include both capital and operation and maintenance costs. An Initial Cost Estimate shall be submitted simultaneously with the draft Design Document submission and the Final Cost Estimate with the Final Design Document. Approval of the cost estimate by U.S. EPA shall not be constructed as a limitation on Settling Defendants' obligation to finance and perform work required under the Consent Decree and Scope of Work in any case where the actual cost exceeds these estimate.

C. Project Schedule

The Settling Defendants shall develop and submit to U.S. EPA for approval a Project Schedule for construction and implementation of the Remedial Actions which identifies timing for initiation and completion of all critical path tasks. Settling Defendants shall specifically identify dates for completion of the project and major interim milestones. The project schedule shall provide for completion of all milestones by no later than 3 1/2 years from the approval of the RD/RA Work Plan by U.S. EPA. An Initial Project Schedule shall be submitted simultaneously with the draft Design Document submission and the Final Project Schedule with the Final Design Document.

D. Construction Quality Assurance Plan

1. Responsibility and Authority

The responsibility and authority of all organizations (i.e. technical consultants, construction firms, etc.) and key personnel involved in the construction of the corrective measure shall be described fully in the CQA plan. The Settling Defendants shall identify a CQA plan. The Settling Defendants shall also identify a CQA officer and the necessary supporting inspection staff.

2. Construction Quality Assurance Personnel Qualifications

The qualifications of the CQA officer and supporting inspection personnel shall be presented in the CQA plan to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities.

3. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the Remedial Actions shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with the environmental requirements and include, but not be limited to air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection shall also ensure compliance with all health and safety procedures. In addition to oversight inspections, the Settling Defendants shall conduct the following activities.

a. Preconstruction inspection and meeting with U.S. EPA

The Settling Defendants shall conduct a preconstruction inspection and meeting to:

1. Review methods for documenting and reporting inspection data;

- ii. Review methods for distributing and storing documents and reports;
- iii. Review work area security and safety protocol;
- iv. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and
- v. Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood, to outline the general approach to be employed to comply with the plans and specifications and remedial action goals, and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person and minutes shall be transmitted to all parties.

b. Prefinal inspection

Upon preliminary project completion, Settling Defendants shall notify EPA for the purposes of conducting a prefinal inspection. The prefinal inspection shall consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the EPA approved Remedial Action. Any outstanding construction items discovered during the inspection shall be identified and noted. Additionally, treatment equipment shall be operationally tested by Settling Defendants. The Settling Defendants shall certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. The prefinal inspection report shall outline the outstanding construction items, actions required to resolve items, completion date for these items, and date for final inspection.

c. Final inspection

Upon completion of any outstanding construction items, the Settling Defendants shall notify EPA for the purposes of conducting a final inspection. The final inspection shall consist of a walk-through inspection of the project site. The prefinal inspection report will be used as a checklist with the Final inspection focusing on the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

4. Sampling Requirements

The sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems as addressed in the project specifications shall be presented in the CQA plan.

5. Documentation

Reporting requirements for CQA activities shall be described in detail in the CQA plan. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records shall be presented in the CQA plan.

E. Health and Safety Plan/Emergency Contingency Plan

The Settling Defendants shall modify the Health Safety Plan developed for the RI/FS to address the activities to be performed at the facility to implement the Remedial Action(s), including a plan to be implemented in the event of a life-threatening situation or a release of hazardous substances to the environment.

Rod Fig 2

Site Plan - Waste Piles

Taracorp
Industries

Trust 454 -
St. Louis Lead
Recyclers

SLLR
Sub-
Piles(3)

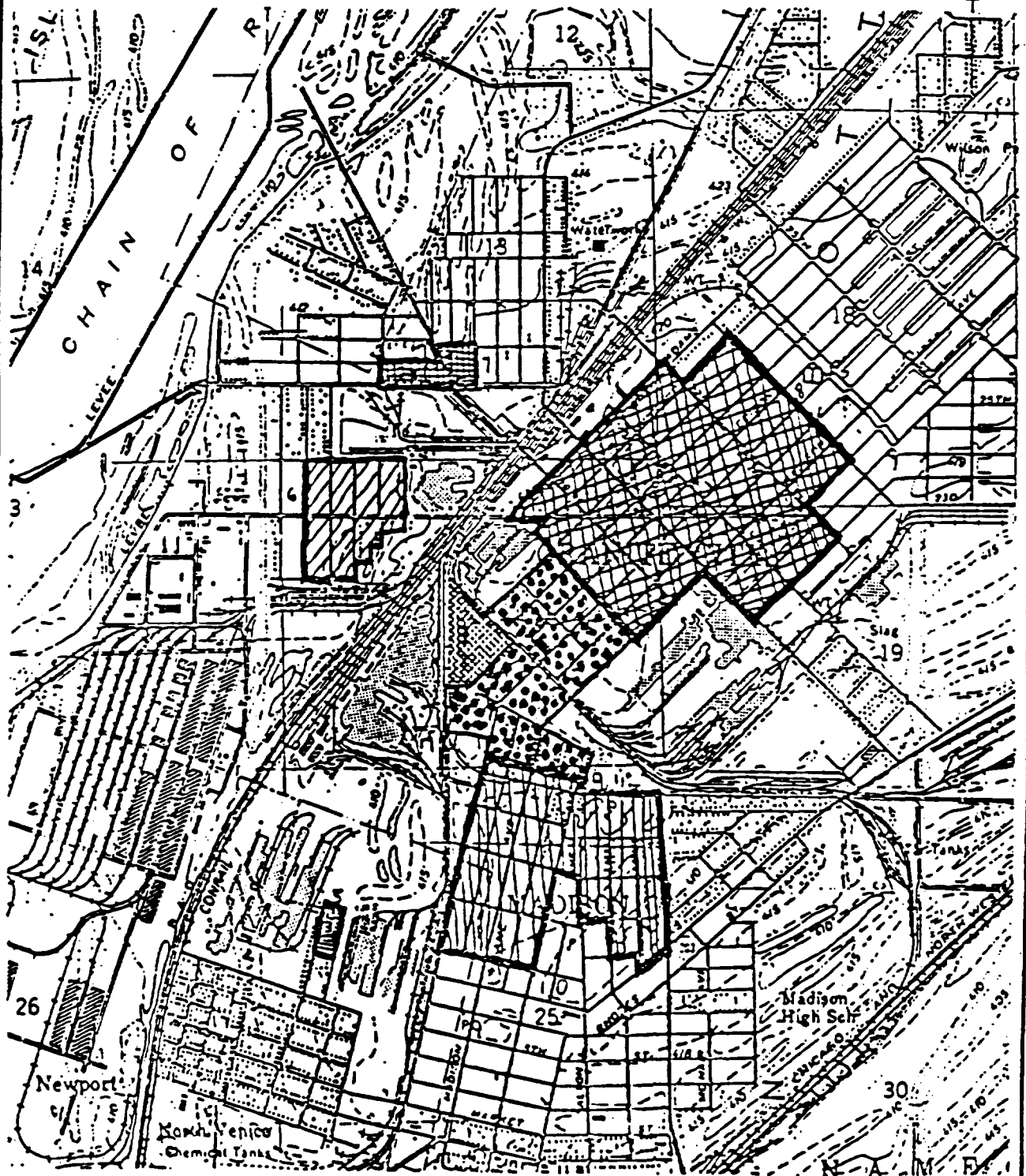
SLLR
Pile

Taracorp
Pile

Tri-City Trucking

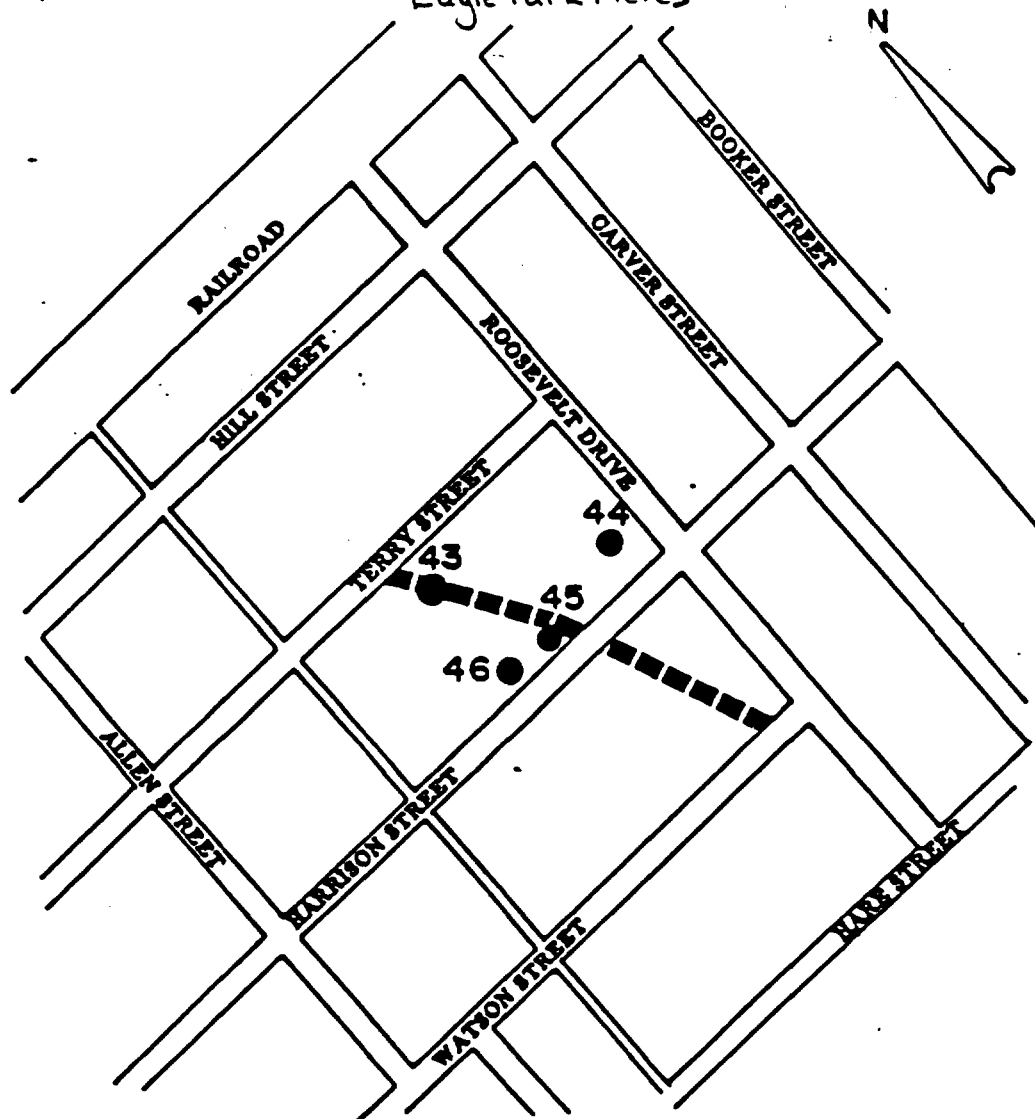
RGD Figure 5

NL INDUSTRIES
GRANITE CITY SITE
GRANITE CITY, ILLINOIS
Estimated Areas of Lead Contamination
Above 500 ppm



- PROJECT SITE
 - Area 5
 - Area 7
 SCALE
 Areas 1-3
 - Area 4
 - Area 6
 - Area 8
 NOTE: MAP ADAPTED FROM U.S.G.S.
 GRANITE CITY QUADRANGLE
 ILLINOIS
 QUADRANGLE LOCATION
 MILES

R0D Figure 6
Estimated Areas of Contamination
Eagle Park Acres



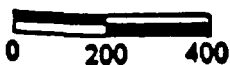
REMOTE FILL AREA
EAGLE PARK ACRES

LEGEND

● SOIL SAMPLE LOCATION

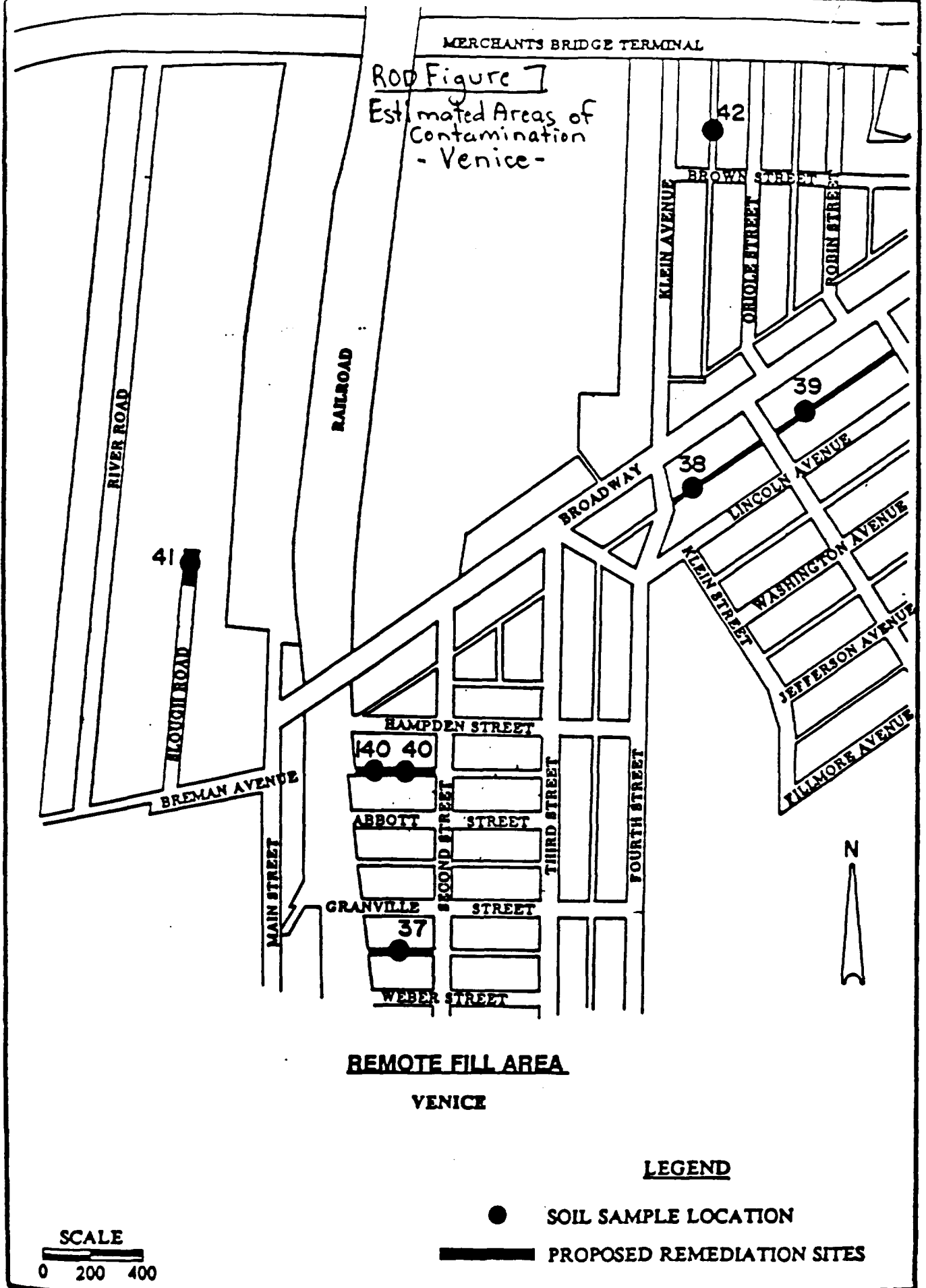
■■■ APPROXIMATE LOCATION OF DI

SCALE



MERCHANTS BRIDGE TERMINAL

ROD Figure 7
Estimated Areas of
Contamination
- Venice -



Rod Figure 8 Multimedia Cap Detail

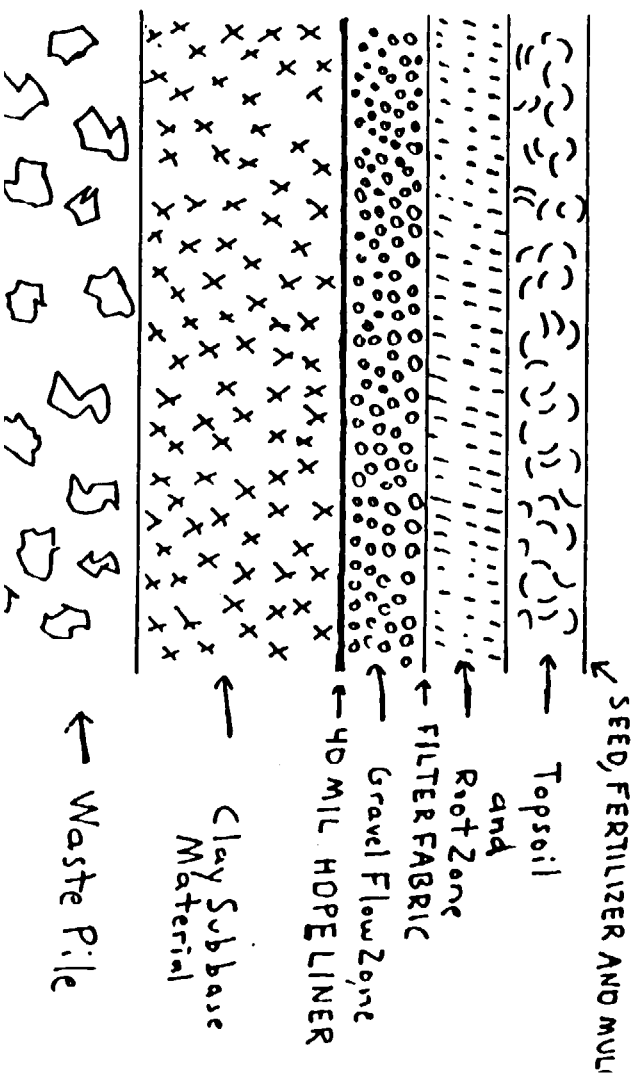


TABLE 1

Hazardous Substance List (HSL)

| Volatiles | Semi-Volatiles |
|-------------------------------|---|
| 1. Chloromethane | 36. Phenol |
| 2. Bromomethane | 37. bis(2-Chloroethyl) ether |
| 3. Vinyl Chloride | 38. 2-Chlorophenol |
| 4. Chloroethane | 39. 1,3-Dichlorobenzene |
| 5. Methylene Chloride | 40. 1,4-Dichlorobenzene |
| 6. Acetone | 41. Benzyl Alcohol |
| 7. Carbon Disulfide | 42. 1,2-Dichlorobenzene |
| 8. 1,1-Dichloroethene | 43. 2-Methylphenol |
| 9. 1,1-Dichloroethane | 44. bis(2-Chloroisopropyl) ether |
| 10. trans-1,2-Dichloroethane | 45. 4-Methylphenol |
| 11. Chloroform | 46. N-Nitroso-Dipropylamine |
| 12. 1,2-Dichloroethane | 47. Hexachloroethane |
| 13. 2-Butanone | 48. Nitrobenzene |
| 14. 1,1,1-Trichloroethane | 49. Isophorone |
| 15. Carbon Tetrachloride | 50. 2-Nitrophenol |
| 16. Vinyl Acetate | 51. 2,4-Dimethylphenol |
| 17. Bromodichloromethane | 52. Benzoic Acid |
| 18. 1,1,2,2-Tetrachloroethane | 53. bis(2-Chloroethoxy) methane |
| 19. 1,2-Dichloropropane | 54. 2,4-Dichlorophenol |
| 20. trans-1,3-Dichloropropene | 55. 1,2,4-Trichlorobenzene |
| 21. Trichloroethane | 56. Naphthalene |
| 22. Dibromochloromethane | 57. 4-Chloroaniline |
| 23. 1,1,2-Trichloroethane | 58. Hexachlorobutadiene |
| 24. Benzene | 59. 4-Chloro-3-methylphenol (para-chloro-meta-cresol) |
| 25. cis-1,3-Dichloropropene | 60. 2-Methylnaphthalene |
| 26. 2-Chloroethyl Vinyl Ether | 61. Hexachlorocyclopentadiene |
| 27. Bromoform | 62. 2,4,6-Trichlorophenol |
| 28. 2-Hexanone | 63. 2,4,5-Trichlorophenol |
| 29. 4-Methyl-2-pentanone | 64. 2-Chloronaphthalene |
| 30. Tetrachloroethene | 65. 2-Nitroaniline |
| 31. Toluene | 66. Dimethyl Phthalate |
| 32. Chlorobenzene | 67. Acenaphthylene |
| 33. Ethyl Benzene | 68. 3-Nitroaniline |
| 34. Styrene | |
| 35. Total Xylenes | |

TABLE 1 - continued

| <u>Semi-Volatiles</u> | <u>Pesticides</u> | <u>Elements - Metals</u> |
|------------------------------------|--------------------------|------------------------------|
| 69. Acenaphthene | 101. alpha-BHC | Aluminum |
| 70. 2,4-Dinitrophenol | 102. beta-BHC | Antimony |
| 71. 4-Nitrophenol | 103. delta-BHC | Arsenic |
| 72. Dibenzofuran | 104. gamma-BHC (Lindane) | Barium |
| 73. 2,4-Dinitrotoluene | 105. Heptachlor | Beryllium |
| 74. 2,6-Dinitrotoluene | 106. Aldrin | Cadmium |
| 75. Diethylphthalate | 107. Heptachlor Epoxide | Calcium |
| 76. 4-Chlorophenyl Phenyl ether | 108. Endosulfan I | Chromium |
| 77. Fluorene | 109. Dieldrin | Cobalt |
| 78. 4-Nitroaniline | 110. 4,4'-DDE | Copper |
| 79. 4,6-Dinitro-2-methylphenol | 111. Endrin | Iron |
| 80. N-nitrosodiphenylamine | 112. Endosulfan II | Lead |
| 81. 4-Bromophenyl Phenyl ether | 113. 4,4'-DDD | Magnesium |
| 82. Hexachlorobenzene | 114. Endosulfan Sulfate | Manganese |
| 83. Pentachlorophenol | 115. 4,4'-DDT | Mercury |
| 84. Phenanthrene | 116. Endrin Ketone | Nickel |
| 85. Anthracene | 117. Methoxychlor | Potassium |
| 86. Di-n-butylphthalate | 118. Chlordane | Selenium |
| 87. Fluoranthene | 119. Toxaphene | Silver |
| 88. Pyrene | 120. AROCLOR-1016 | Sodium |
| 89. Butyl Benzyl Phthalate | 121. AROCLOR-1221 | Thallium |
| 90. 3,3'-Dichlorobenzidine | 122. AROCLOR-1232 | Vanadium |
| 91. Benzo(a)anthracene | 123. AROCLOR-1242 | Zinc |
| 92. bis(2-ethylhexyl)phthalate | 124. AROCLOR-1248 | Cyanide |
| 93. Chrysene | 125. AROCLOR-1254 | |
| 94. Di-n-octyl Phthalate | 126. AROCLOR-1260 | |
| 95. Benzo(b)fluoranthene | | |
| 96. Benzo(k)fluoranthene | | |
| 97. Benzo(a)pyrene | | |
| 98. Indeno(1,2,3-cd)pyrene | | |
| 99. Dibenz(a,h)anthracene | | |
| 100. Benzo(g,h,i)perylene | | |

ATTACHMENT V

The ranking by weight of all parties listed in Attachment IV are attached.

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE:

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|---|-------------------------------------|-----------------------------------|
| 1 | GLOBE UNION | 69,123,285.00 | 14.69639 |
| 2 | AT&T | 58,125,993.00 | 12.35824 |
| | WESTERN ELECTRIC COMPANY | (27,598,254.00) | (5.86770) |
| | NASSAU SMELTING AND REFINING CO., INC. | (25,784,322.00) | (5.48204) |
| | NASSAU RECYCLE CORPORATION | (4,743,417.00) | (1.00850) |
| 3 | ESB | 20,023,698.00 | 4.25727 |
| 4 | ACE SCRAP METAL PROCESSORS | 18,422,256.48 | 3.91678 |
| 5 | SOUTHERN SCRAP I & M/METAL PROCESSING | 14,592,315.00 | 3.10249 |
| 6 | PRESTOLITE BATTERY | 12,415,383.40 | 2.63965 |
| 7 | GOPHER SMELTING & REFINING COMPANY | 11,482,485.00 | 2.44131 |
| 8 | STRAIGHTWAY IRON & METAL COMPANY | 11,430,778.00 | 2.43031 |
| 9 | PHILIPP BROTHERS, INC. | 8,774,614.60 | 1.86558 |
| 10 | FEDERAL CARTRIDGE CORPORATION dba/ FEDERAL-HOFFMAN, INC. | 8,443,687.00 | 1.795. |
| 11 | FINER METAL COMPANY | 7,971,574.00 | 1.69485 |
| 12 | SANDERS LEAD COMPANY | 7,965,770.00 | 1.69361 |
| 13 | GOULD, INC. | 7,342,701.00 | 1.56114 |
| 14 | FEDERAL IRON & METAL COMPANY | 7,283,213.00 | 1.54849 |
| 15 | SUPPO SMELTING & REFINING COMPANY | 6,671,068.00 | 1.41834 |
| 16 | U.S. STEEL LEAD REFINERY, INC. | 6,633,081.00 | 1.41027 |
| 17 | ST. LOUIS LEAD RECYCLERS | 6,274,860.00 | 1.33411 |
| 18 | MISSOURI IRON & METAL COMPANY, INC. | 5,970,522.00 | 1.26940 |
| 19 | CHEMETCO | 5,400,943.00 | 1.14830 |
| 20 | BECKER METALS CORPORATION | 5,171,446.00 | 1.09951 |
| 21 | ED PARKINSON | 5,142,945.00 | 1.09345 |
| 22 | ALTER COMPANY | 5,063,560.00 | 1.076' |
| 23 | A. MILLER & COMPANY | 5,061,837.00 | 1.07620 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 1

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|---|-------------------------------------|-----------------------------------|
| 24 | ACME BATTERY MANUFACTURING CO. | 4,965,760.00 | 1.05578 |
| 25 | MADEWELL & MADEWELL | 4,257,858.00 | 0.90527 |
| 26 | DELCO-REMY DIVISION OF GM | 4,188,761.00 | 0.89058 |
| 27 | VINCE JACKS IRON & METAL | 4,142,581.00 | 0.88076 |
| 28 | GENERAL BATTERY CORPORATION | 3,696,834.00 | 0.78599 |
| 29 | SHOSTAK IRON & METAL CO., INC. | 3,532,745.00 | 0.75110 |
| 30 | WADDELL BROTHERS METAL COMPANY | 3,318,080.00 | 0.70546 |
| 31 | LISSNER CORPORATION | 3,201,075.00 | 0.68058 |
| 32 | MORRIS TICK CO. INC. | 2,947,510.00 | 0.62667 |
| 33 | MCKINLEY IRON COMPANY | 2,945,237.00 | 0.62619 |
| 34 | CENTRAL IRON & METAL COMPANY | 2,630,632.00 | 0.5592^ |
| 35 | VERSATILE METALS | 2,524,169.00 | 0.536 |
| 36 | ABF METAL COMPANY | 2,484,693.00 | 0.52827 |
| 37 | COMMERCIAL METALS COMPANY | 2,429,042.00 | 0.51644 |
| 38 | DEL RICH BATTERY & METAL COMPANY | 2,391,740.00 | 0.50851 |
| 39 | FEINBERG BROS. | 2,361,466.00 | 0.50207 |
| 40 | SEIDENFELD & SON IRON & METAL | 2,344,695.00 | 0.49851 |
| 41 | SOL TICK & COMPANY dba/ HERB TICK INC. | 2,269,973.00 | 0.48262 |
| 42 | INTERSTATE BATTERY SYSTEMS OF AMERICA | 2,252,470.00 | 0.47890 |
| 43 | SPRINGFIELD BATTERY COMPANY | 2,220,312.00 | 0.47206 |
| 44 | SHANKE METALS, INC. | 2,067,764.00 | 0.43963 |
| 45 | FORD MOTOR COMPANY | 2,039,840.10 | 0.43369 |
| 46 | CHANEN'S, INC. | 1,980,209.00 | 0.42101 |
| 47 | SURE-START BATTERY | 1,959,100.00 | 0.41 |
| 48 | G. & M. SCRAP METAL | 1,863,309.00 | 0.39616 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 1

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|---|-------------------------------------|-----------------------------------|
| 49 | UNITED SCRAP LEAD COMPANY, INC. | 1,861,110.00 | 0.39569 |
| 50 | GENERAL MOTORS CORPORATION | 1,830,361.00 | 0.38916 |
| 51 | GROSSMAN IRON & STEEL COMPANY | 1,815,320.00 | 0.38596 |
| 52 | IMPERIAL SMELTING CORPORATION | 1,696,871.00 | 0.36077 |
| 53 | K.W. BATTERY | 1,638,853.00 | 0.34844 |
| 54 | MODINE MANUFACTURING COMPANY | 1,548,712.00 | 0.32927 |
| 55 | J. SOLOMON & SONS | 1,534,835.00 | 0.32632 |
| 56 | LESLIE COOPER BATTERY & METAL COMPANY | 1,512,820.00 | 0.32164 |
| 57 | REYNOLDS ELECTRIC | 1,503,286.00 | 0.31962 |
| 58 | O'DELL IRON & METAL COMPANY | 1,481,601.00 | 0.31501 |
| 59 | BOB KELLER BATTERIES WAREHOUSE | 1,420,040.00 | 0.3019 |
| 60 | MADEWELL METALS CORPORATION | 1,384,227.00 | 0.29430 |
| 61 | MID-MISSOURI METALS | 1,383,210.00 | 0.29409 |
| 62 | M. RUBEN METAL COMPANY, INC. | 1,341,860.00 | 0.28529 |
| 63 | ACE BATTERY INCORPORATED | 1,271,730.00 | 0.27038 |
| 64 | GARY'S METAL | 1,231,175.00 | 0.26176 |
| 65 | INLAND METALS REFINING COMPANY | 1,198,329.00 | 0.25478 |
| 66 | FARMLAND | 1,195,854.00 | 0.25425 |
| 67 | CHRYSLER CORPORATION | 1,167,541.00 | 0.24823 |
| 68 | M. GERVICH & SONS, INC. | 1,162,721.00 | 0.24721 |
| 69 | ELECTRO BATTERY MANUFACTURING CO. | 1,105,680.00 | 0.23508 |
| 70 | M.S. KAPLAN COMPANY | 1,083,733.00 | 0.23041 |
| 71 | ROSEN METALS, INC. | 1,038,405.00 | 0.22078 |
| 72 | C. & D. BATTERY dba/ C & D CHARTER POWER | 1,024,088.00 | 0.21773 |
| 73 | ACTIVE METAL COMPANY | 1,003,513.00 | 0.21336 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE:

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|--|-------------------------------------|-----------------------------------|
| 74 | FISHER BODY DIVISION OF GENERAL MOTORS | 989,578.00 | 0.21040 |
| 75 | TOM LEWIS SALVAGE | 985,405.00 | 0.20951 |
| 76 | SOUTH SIDE MACHINE WORKS | 929,754.00 | 0.19768 |
| 77 | SHANFELD BROS. METAL COMPANY | 901,272.00 | 0.19162 |
| 78 | OTTO LERCHE FIRESTONE | 900,500.00 | 0.19146 |
| 79 | DIVERSIFIED METALS CORPORATION | 887,637.00 | 0.18872 |
| 80 | W.R. LEWIS SUPPLY COMPANY | 887,215.00 | 0.18863 |
| 81 | REX CURTSINGER, SR. | 860,540.00 | 0.18296 |
| 82 | SALVAGE BATTERY & LEAD CO. | 856,870.00 | 0.18218 |
| 83 | DELHI BATTERY & SUPPLY | 829,998.40 | 0.17647 |
| 84 | MADISON SCALE | 828,440.00 | 0.176 |
| 85 | B.C. BATTERY | 792,240.00 | 0.166 |
| 86 | J. C. PENNY | 777,320.00 | 0.16527 |
| 87 | NATIONAL METAL COMPANY | 762,494.00 | 0.16211 |
| 88 | SADOFF IRON & METAL | 755,138.00 | 0.16055 |
| 89 | STANLEY TOEBBEN | 732,130.00 | 0.15566 |
| 90 | BILL'S SALVAGE | 724,522.00 | 0.15404 |
| 91 | BERT BOLLINGER | 716,680.00 | 0.15237 |
| 92 | A. TENENBAUM | 664,652.00 | 0.14131 |
| 93 | BELL CITY BATTERY COMPANY | 664,305.80 | 0.14124 |
| 94 | METRO METALS RECYCLERS | 647,035.00 | 0.13757 |
| 95 | OLD IRONSIDES, INC. | 640,600.00 | 0.13620 |
| 96 | GRAHAM METAL CORPORATION | 640,060.00 | 0.13608 |
| 97 | DELTA METALS | 625,231.00 | 0.137 |
| 98 | WESTERN AUTO | 623,850.00 | 0.13264 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 5

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|--|-------------------------------------|-----------------------------------|
| 99 | STANDARD STORAGE BATTERY COMPANY | 596,681.00 | 0.12686 |
| 100 | CALVERT'S SCRAPYARD, INC. | 584,050.00 | 0.12418 |
| 101 | LA SALLE STEEL COMPANY | 582,769.00 | 0.12390 |
| 102 | REEVES SCRAP METAL | 567,580.00 | 0.12067 |
| 103 | RAMAK INDUSTRIES | 559,508.00 | 0.11896 |
| 104 | OVERLAND METALS, INC. | 548,704.00 | 0.11666 |
| 105 | NORTHERN METALS, INC. | 542,803.00 | 0.11541 |
| 106 | KEMCO METAL PROCESSING | 527,166.00 | 0.11208 |
| 107 | CASH'S SCRAP METAL & IRON | 521,260.00 | 0.11083 |
| 108 | AARON FERER & SONS COMPANY | 508,397.00 | 0.10809 |
| 109 | GENERAL WASTE PRODUCTS | 478,676.00 | 0.101 |
| 110 | SLESNICK IRON & METAL | 477,820.00 | 0.10159 |
| 111 | ROTH BROTHERS | 476,796.00 | 0.10137 |
| 112 | METAL RECYCLING CORPORATION | 456,025.00 | 0.09696 |
| 113 | TOP METAL BUYERS dba/ EIGHTH & TRENDLY METALS | 456,011.00 | 0.09695 |
| 114 | H. BRECKER & SON | 416,188.00 | 0.08849 |
| 115 | MAX SCHWARTZMAN & SONS, INC. | 389,983.00 | 0.08291 |
| 116 | OLIN CORPORATION | 384,080.00 | 0.08166 |
| 117 | H. BROWN COMPANY, INC. | 380,940.00 | 0.08099 |
| 118 | SIOUX CITY COMPRESSED STEEL | 370,070.00 | 0.07868 |
| 119 | BILLITON METALS, INC. | 355,608.00 | 0.07561 |
| 120 | WEST END HIDE & FUR | 344,220.00 | 0.07319 |
| 121 | HOUSTON SALVAGE | 336,560.00 | 0.071 |
| 122 | OKON IRON & METAL COMPANY | 334,947.00 | 0.07121 |
| 123 | KAMEN IRON & METAL COMPANY | 329,820.00 | 0.07012 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE:

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TO. SITE AMOUNT</u> |
|-------------|---------------------------------------|-------------------------------------|---------------------------------|
| 124 | FUNDAMENTAL METAL AND MINERAL CORP. | 325,159.00 | 0.06913 |
| 125 | PET, INC. | 319,054.00 | 0.06783 |
| 126 | AFRAM BROTHERS COMPANY | 299,010.00 | 0.06357 |
| 127 | MARCO STEEL SUPPLY | 283,900.00 | 0.06036 |
| 128 | AMAX INC./AMAX LEAD & ZINC | 282,721.00 | 0.06011 |
| 129 | WILLOUGHBY IRON & WASTE MATERIALS CO. | 282,540.00 | 0.06007 |
| 130 | JOHNSON METAL COMPANY | 272,970.00 | 0.05804 |
| 131 | RED DIAMOND BATTERY MANUFACTURING CO. | 267,720.00 | 0.05692 |
| 132 | PRICE WATSON | 265,870.00 | 0.05653 |
| 133 | ACE COMB COMPANY | 264,913.00 | 0.05632 |
| 134 | WESTERN GUN & SUPPLY | 259,803.00 | 0.05524 |
| 135 | WILLIAM S. LASICH & SONS | 242,780.00 | 0.05 |
| 136 | SOL ALMAN COMPANY | 242,534.00 | 0.05157 |
| 137 | PIELET BROTHERS SCRAP IRON & METAL | 241,740.00 | 0.05140 |
| 138 | YOUNG RADIATOR COMPANY | 235,467.40 | 0.05006 |
| 139 | GT METALS | 235,420.00 | 0.05005 |
| 140 | RICH BATTERY & METAL COMPANY | 234,190.00 | 0.04979 |
| 141 | JERRY PRATHER | 226,600.00 | 0.04818 |
| 142 | PEQUEA BATTERY COMPANY | 226,535.00 | 0.04816 |
| 143 | SHAPIRO SALES COMPANY | 216,193.00 | 0.04597 |
| 144 | A. EDELSTEIN & SONS | 210,870.00 | 0.04483 |
| 145 | STAAB BATTERY | 209,001.00 | 0.04444 |
| 146 | PRIME BATTERY SALES | 205,720.00 | 0.04374 |
| 147 | ATLAS INDUSTRIES | 205,171.00 | 0.04362 |
| 148 | GALAXY METALS | 201,869.00 | 0.04 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE:

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|-----------------------------------|-------------------------------------|-----------------------------------|
| 149 | KASMAR METALS, INC. | 201,470.00 | 0.04283 |
| 150 | CEDARTOWN INDUSTRIES | 200,000.00 | 0.04252 |
| 151 | SCHWARTZ METAL PROCESSORS & TRADE | 199,090.00 | 0.04233 |
| 152 | U.S. SCRAP & METAL COMPANY | 196,854.00 | 0.04185 |
| 153 | ANDERSON STEEL, INC. | 194,248.00 | 0.04130 |
| 154 | BOB BERNSTEIN | 171,920.00 | 0.03655 |
| 155 | ELDEN R. ERIKSON & SONS, INC. | 168,780.00 | 0.03588 |
| 156 | FISHER STEEL & SUPPLY CO. | 165,805.00 | 0.03525 |
| 157 | MIKE ASFOOR & SONS | 163,840.00 | 0.03483 |
| 158 | H.S. KAPLAN SCRAP IRON & METAL | 162,974.00 | 0.03465 |
| 159 | HOUSTON SCRAP | 160,000.00 | 0.03402 |
| 160 | PELTZ BROTHERS | 160,000.00 | 0.03402 |
| 161 | OHIO NEW & REBUILT | 160,000.00 | 0.03402 |
| 162 | ASARCO | 160,000.00 | 0.03402 |
| 163 | FT. DODGE IRON & METAL CO. | 159,271.00 | 0.03386 |
| 164 | RUBEN METAL CO., INC. | 155,866.00 | 0.03314 |
| 165 | ST. LOUIS LAW PRINTING COMPANY | 155,601.00 | 0.03308 |
| 166 | LEFTON IRON & METAL COMPANY | 153,505.00 | 0.03264 |
| 167 | KAVANAUGH SALVAGE | 152,280.00 | 0.03238 |
| 168 | MURPHYSBORO IRON & METAL | 149,760.00 | 0.03184 |
| 169 | LARRY GOAD & COMPANY | 145,034.00 | 0.03084 |
| 170 | A. O. SMITH CORPORATION | 144,625.00 | 0.03075 |
| 171 | HENRY RAUTBORT | 143,250.00 | 0.0306 |
| 172 | MARDIANS INC. | 142,936.00 | 0.03039 |
| 173 | BENJAMIN AIR RIFLE | 135,161.00 | 0.02874 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE:

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|---|-------------------------------------|-----------------------------------|
| 174 | BILL BERGMAYER | 130,620.00 | 0.02777 |
| 175 | MACCO INDUSTRIES | 128,855.00 | 0.02740 |
| 176 | PEORIA BATTERY | 128,084.00 | 0.02723 |
| 177 | STANDARD LEAD CO., INC. | 126,080.00 | 0.02681 |
| 178 | BERLINSKI & SONS | 125,668.00 | 0.02672 |
| 179 | FLEENOR BATTERY WHOLESALE INC. | 125,120.00 | 0.02660 |
| 180 | WORLD METAL BUYERS | 124,980.00 | 0.02657 |
| 181 | J. TROCKMAN & SONS | 122,993.00 | 0.02615 |
| 182 | MILLER COMPRESSING COMPANY | 122,402.00 | 0.02602 |
| 183 | WEST KENTUCKY BATTERY, INC. | 122,080.00 | 0.02596 |
| 184 | DOUGLAS BATTERY MANUFACTURING COMPANY | 121,840.00 | 0.02590 |
| 185 | GACHMAN METALS COMPANY | 121,760.00 | 0.02 |
| 186 | AETNA METALS | 119,430.00 | 0.02539 |
| 187 | PRICE METAL | 118,300.00 | 0.02515 |
| 188 | DIAMOND SCRAP YARD | 117,930.00 | 0.02507 |
| 189 | SCHEER SHOOTING SUPPLIES | 115,549.00 | 0.02457 |
| 190 | MORRIMET, INC. | 112,320.00 | 0.02388 |
| 191 | NORTHWESTERN BELL TELEPHONE COMPANY dba/ U S WEST COMMUNICATIONS | 112,280.00 | 0.02387 |
| 192 | S-G METALS INDUSTRIES, INC. | 110,340.00 | 0.02346 |
| 193 | MASTER METALS | 110,000.00 | 0.02339 |
| 194 | SOUTHWESTERN BELL TELEPHONE COMPANY | 107,508.00 | 0.02286 |
| 195 | CHARLES W. JOHNSON | 103,145.00 | 0.02193 |
| 196 | GSA | 100,000.00 | 0.02126 |
| 197 | WICKS ORGAN COMPANY | 93,655.00 | 0.01 |
| 198 | SCHUSTER METALS, INC. | 85,940.00 | 0.01827 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE:

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|---|-------------------------------------|-----------------------------------|
| 199 | BATTERY HEADQUARTERS | 85,900.00 | 0.01826 |
| 200 | SENER METAL COMPANY | 85,460.00 | 0.01817 |
| 201 | BILL'S AUTO PARTS | 84,008.00 | 0.01786 |
| 202 | INTRA-AMERICAN METALS | 82,710.00 | 0.01759 |
| 203 | PARKS IRON & METAL | 82,465.00 | 0.01753 |
| 204 | CONTINENTAL COMMODITIES | 81,920.00 | 0.01742 |
| 205 | ACME IRON & METAL CO. | 81,760.00 | 0.01738 |
| 206 | BAKER IRON & METAL | 81,680.00 | 0.01737 |
| 207 | V. H. HOLMES & SONS | 81,580.00 | 0.01734 |
| 208 | DURA BUILT AUTO | 81,320.00 | 0.01729 |
| 209 | MILWAUKEE SCRAP METAL CO. | 81,195.00 | 0.0172 |
| 210 | INDUSTRIAL ELECTRICAL EQUIPMENT CO. | 80,395.00 | 0.01709 |
| 211 | BOMGARS SUPPLY | 80,000.00 | 0.01701 |
| 212 | HAROLD RODICK | 80,000.00 | 0.01701 |
| 213 | BATTERY SALVAGE | 80,000.00 | 0.01701 |
| 214 | SUPERIOR COMPANIES, INC. | 80,000.00 | 0.01701 |
| 215 | METRAM, INC. | 79,020.00 | 0.01680 |
| 216 | E. J. PFEIFER IRON & METAL | 78,930.00 | 0.01678 |
| 217 | BEHR METALS/DIVISION OF JOE BEHR & SONS | 78,595.00 | 0.01671 |
| 218 | TECH-SIL, INC. | 75,000.00 | 0.01595 |
| 219 | CERRO COPPER & BRASS COMPANY | 73,310.00 | 0.01559 |
| 220 | NORTH BROOK SPORTS CLUB | 72,712.00 | 0.01546 |
| 221 | BECKNER IRON & METAL | 72,020.00 | 0.0153 |
| 222 | MALLIN BROTHERS COMPANY | 66,968.00 | 0.01424 |
| 223 | DUGGAN INDUSTRIES | 66,480.00 | 0.01413 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 1

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|--------------------------------|-------------------------------------|-----------------------------------|
| 224 | DON HIBBLER | 65,505.00 | 0.01393 |
| 225 | WALLACH IRON & METAL COMPANY | 64,965.00 | 0.01381 |
| 226 | STANFORD LINEAR ACCELERATOR | 64,671.00 | 0.01375 |
| 227 | WESTERVILLE CREAMERY COMPANY | 61,844.00 | 0.01315 |
| 228 | VIVO IRON & METAL | 59,475.00 | 0.01265 |
| 229 | C.L. DOWNEY COMPANY | 54,969.00 | 0.01169 |
| 230 | CAMPBELL SOUP | 54,007.00 | 0.01148 |
| 231 | BRYAN MFG. | 53,784.00 | 0.01144 |
| 232 | ACRO SALES & ENGINEERING, INC. | 51,516.00 | 0.01095 |
| 233 | NEW CASTLE JUNK COMPANY | 48,600.00 | 0.01033 |
| 234 | CHICAGO BATTERY | 48,000.00 | 0.01000 |
| 235 | BRIGGS USED AUTO PARTS | 46,280.00 | 0.00980 |
| 236 | BRUCO BATTERY COMPANY, INC. | 45,888.00 | 0.00976 |
| 237 | LURIA BROTHERS & CO. | 45,850.00 | 0.00975 |
| 238 | KANSAS CITY BATTERY COMPANY | 45,220.00 | 0.00961 |
| 239 | CROWN BATTERY | 45,180.00 | 0.00961 |
| 240 | REDFIELD IRON & METAL | 44,960.00 | 0.00956 |
| 241 | INTER CITY METAL COMPANY | 44,904.00 | 0.00955 |
| 242 | ASHLEY SALVAGE | 44,880.00 | 0.00954 |
| 243 | WEST END IRON & METAL COMPANY | 44,695.00 | 0.00950 |
| 244 | L. KAHN & SONS | 44,300.00 | 0.00942 |
| 245 | BELSON SCRAP AND STEEL | 44,060.00 | 0.00937 |
| 246 | LOPEZ SCRAP METAL, INC. | 44,040.00 | 0.00936 |
| 247 | ELI ROSENMAN | 43,700.00 | 0.00925 |
| 248 | M. KATCH | 43,380.00 | 0.00922 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 1

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|---------------------------------------|-------------------------------------|-----------------------------------|
| 249 | DISCOUNT BATTERY SALES | 43,300.00 | 0.00921 |
| 250 | SCHOOL OF THE OZARKS | 43,280.00 | 0.00920 |
| 251 | CONSOLIDATED WASTE MATERIAL CO., INC. | 43,080.00 | 0.00916 |
| 252 | KENNECOTT REFINING CORPORATION | 42,470.00 | 0.00903 |
| 253 | BILLY MORROW | 41,940.00 | 0.00892 |
| 254 | ASTRON MANUFACTURING | 41,880.00 | 0.00890 |
| 255 | GLOSSER METAL COMPANY | 41,840.00 | 0.00890 |
| 256 | DUMES, INC. | 41,760.00 | 0.00888 |
| 257 | PRAIRIE STEEL COMPANY | 41,740.00 | 0.00887 |
| 258 | LAKE IRON & METAL COMPANY | 41,720.00 | 0.00887 |
| 259 | MIDWEST INDUSTRIAL METALS | 41,716.00 | 0.00886 |
| 260 | COMMERCIAL IRON & METAL CO. | 41,600.00 | 0.00884 |
| 261 | J. & I. METAL COMPANY | 41,580.00 | 0.00884 |
| 262 | URPS METAL COMPANY | 41,580.00 | 0.00884 |
| 263 | SWAN RUBBER COMPANY | 41,520.00 | 0.00883 |
| 264 | A & W BATTERY | 41,520.00 | 0.00883 |
| 265 | UNION COMPRESSED STEEL | 41,360.00 | 0.00879 |
| 266 | ALLIED METAL COMPANY | 41,250.00 | 0.00877 |
| 267 | MC GRAW EDISON COMPANY | 41,005.00 | 0.00872 |
| 268 | HERMAN STRAUSS COMPANY | 40,980.00 | 0.00871 |
| 269 | SAM ALLEN & SON, INC. | 40,940.00 | 0.00870 |
| 270 | MAX SCHNEIDER | 40,500.00 | 0.00861 |
| 271 | BATCO, INC. | 40,388.00 | 0.00857 |
| 272 | BARTER MACHINERY & SUPPLY COMPANY | 40,259.00 | 0.00856 |
| 273 | S & R METAL COMPANY | 40,000.00 | 0.00850 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 1

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|--|-------------------------------------|-----------------------------------|
| 274 | TRINITY SCRAP | 40,000.00 | 0.00850 |
| 275 | I. J. SOBEL & SONS | 40,000.00 | 0.00850 |
| 276 | SHAPIRO BROTHERS | 40,000.00 | 0.00850 |
| 277 | HIGHLAND PARK WASTE MATERIAL | 39,760.00 | 0.00845 |
| 278 | MARTIN BROTHERS MILL & FOUNDRY SUPPLY | 39,760.00 | 0.00845 |
| 279 | SUMMIT STEEL | 39,334.00 | 0.00836 |
| 280 | SISKIN STEEL & SUPPLY | 39,300.00 | 0.00836 |
| 281 | ST. LOUIS BOTTLE IRON & METAL COMPANY | 39,152.00 | 0.00832 |
| 282 | NORM'S METAL COMPANY | 38,855.00 | 0.00826 |
| 283 | STEWART-WARNER | 38,100.00 | 0.00810 |
| 284 | SAMUEL HIDE & METAL | 37,576.00 | 0.00790 |
| 285 | SCHUPAN & SONS, INC. | 36,940.00 | 0.00785 |
| 286 | PLUMBING JOINT APPRENTICESHIP TRAINING | 36,081.00 | 0.00767 |
| 287 | BERKSON SMELTING COMPANY | 35,285.00 | 0.00750 |
| 288 | LADYMAN ENGINEERING ENTERPRISES | 34,580.00 | 0.00735 |
| 289 | SPARTAN PRINTING COMPANY | 34,125.00 | 0.00726 |
| 290 | NATIONAL TYPOGRAPHER, INC. | 33,626.00 | 0.00715 |
| 291 | CBC, INC. | 33,270.00 | 0.00707 |
| 292 | D. POLLACK & SONS | 30,522.00 | 0.00649 |
| 293 | PLOUGH, INC. | 30,000.00 | 0.00638 |
| 294 | TRIANGLE METALLURGICAL, INC. | 29,024.00 | 0.00617 |
| 295 | MAC GLASHEN ENTERPRISES | 28,425.00 | 0.00604 |
| 296 | STEEL BALING CO., INC. | 28,030.00 | 0.00596 |
| 297 | CONTINENTAL CAN COMPANY | 26,427.00 | 0.00575 |
| 298 | ROMAK INDUSTRIES | 25,400.00 | 0.00555 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 1

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|--|-------------------------------------|-----------------------------------|
| 299 | I. C. M. S. | 25,076.80 | 0.00533 |
| 300 | RELIANCE BATTERY COMPANY | 25,060.00 | 0.00533 |
| 301 | THERMAL CORPORATION | 24,880.00 | 0.00529 |
| 302 | INTSEL CORPORATION | 24,250.00 | 0.00516 |
| 303 | AMERICAN RECYCLING COMPANY | 23,740.00 | 0.00505 |
| 304 | RENU BATTERY SERVICE | 23,640.00 | 0.00503 |
| 305 | 3-H INDUSTRIES | 21,000.00 | 0.00446 |
| 306 | I. DEUTCH COMPANY | 20,000.00 | 0.00425 |
| 307 | POLLACK HIDE & FUR | 20,000.00 | 0.00425 |
| 308 | MIDWEST IRON & METAL CO. | 19,658.00 | 0.00418 |
| 309 | JAMES H. TESSEM | 18,340.00 | 0.00396 |
| 310 | BEN GREENBERG COMPANY | 18,100.00 | 0.00385 |
| 311 | AMERICAN NATIONAL CAN COMPANY | 16,244.00 | 0.00345 |
| | AMERICAN CAN COMPANY | (13,946.00) | (0.00297) |
| | NATIONAL CAN CORPORATION | (2,298.00) | (0.00049) |
| 312 | TRI-CITY SCRAP COMPANY | 16,078.00 | 0.00342 |
| 313 | BALL METAL & CHEMICAL | 15,530.00 | 0.00330 |
| 314 | COMFORT PRINTING AND STATIONERY CO. | 15,000.00 | 0.00319 |
| 315 | UNICOR FEDERAL PRISON INDUSTRIES, INC. | 14,175.00 | 0.00301 |
| 316 | MEYER BATTERY SERVICE | 14,060.00 | 0.00299 |
| 317 | ALBIN CO. | 12,390.00 | 0.00263 |
| 318 | UNIVERSITY OF ILLINOIS AT URBANA | 12,018.00 | 0.00256 |
| 319 | CNC INDUSTRIES, INC. | 11,032.00 | 0.00235 |
| 320 | WILLIAM LANS COMPANY | 10,000.00 | 0.00217 |
| 321 | COSCO GRAPHICS COMPANY | 9,420.00 | 0.00200 |
| 322 | JAY METAL PROCESSING | 8,981.00 | 0.00191 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 10

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|--|-------------------------------------|-----------------------------------|
| 323 | REINERT - PRIESLER ELECTROTYPE COMPANY | 8,568.00 | 0.00182 |
| 324 | NEW ORLEANS PUBLIC SERVICE, INC. | 8,400.00 | 0.00179 |
| 325 | SUPERIOR TYPESETTING | 8,086.00 | 0.00172 |
| 326 | HEEKIN CAN | 7,700.00 | 0.00164 |
| 327 | RANKIN TECHNICAL INSTITUTE | 7,300.00 | 0.00155 |
| 328 | PARKANS INTERNATIONAL | 6,996.50 | 0.00149 |
| 329 | JAMIL PRODUCTS | 5,800.00 | 0.00123 |
| 330 | UNIQUE ART GLASS | 5,789.00 | 0.00123 |
| 331 | T.G. MARSHALL MANUFACTURING COMPANY | 5,783.00 | 0.00123 |
| 332 | AMERICAN INDUSTRIAL LININGS, INC. | 5,600.00 | 0.00119 |
| 333 | OTIS RADIO & ELECTRIC CORPORATION | 5,540.00 | 0.00118 |
| 334 | GEBCO | 5,536.00 | 0.001 |
| 335 | PENN DIXIE STEEL | 4,000.00 | 0.00085 |
| 336 | FARWEST SPORT | 3,814.00 | 0.00081 |
| 337 | CROWN CORK & SEAL COMPANY | 3,321.00 | 0.00071 |
| 338 | GENERAL ELECTRIC | 3,134.60 | 0.00067 |
| 339 | SHERWIN WILLIAMS COMPANY | 3,067.00 | 0.00065 |
| 340 | JORDAN HEIMAN | 3,050.00 | 0.00065 |
| 341 | CENTRITECH CORPORATION | 2,344.00 | 0.00050 |
| 342 | MCDONNELL-DOUGLAS | 1,902.00 | 0.00040 |
| 343 | DANIEL RADIATOR | 1,889.00 | 0.00040 |
| 344 | VINCENT BRASS & ALUMINUM | 1,879.00 | 0.00040 |
| 345 | ATCHINSON & BROWN STANDARD SERVICE | 1,860.00 | 0.00040 |
| 46 | ACME PREMIUM SUPPLY CORP. | 1,790.00 | 0.000 |
| 347 | MILFORD RIVET & MACHINE COMPANY | 1,625.00 | 0.000 |

06/22/90

NL INDUSTRIES
INCOMING TRANSACTIONS
GENERATOR RANKING SUMMARY

PAGE: 1

| <u>RANK</u> | <u>GENERATOR</u> | <u>TOTAL AMOUNT (IN POUNDS)</u> | <u>% OF TOTAL SITE AMOUNT</u> |
|-------------|--------------------------------|-------------------------------------|-----------------------------------|
| 348 | BEAR MANUFACTURING CORPORATION | 1,460.00 | 0.00031 |
| 349 | MODERN PRINTING COMPANY | 1,343.00 | 0.00029 |
| 350 | GATEWAY E-Z GO | 1,320.00 | 0.00028 |
| 351 | EDWARDSVILLE INTELLIGENCER | 1,220.00 | 0.00026 |
| 352 | CENTRAL WASTE MATERIALS | 1,150.00 | 0.00024 |
| 353 | DUDLEY AUTO RADIATOR | 908.00 | 0.00019 |
| 354 | MARCHEM RESOURCES, INC. | 826.00 | 0.00018 |
| 355 | H.C. DUKE & SON, INC. | 736.00 | 0.00016 |
| 356 | CALL PUB CO., INC. | 605.00 | 0.00013 |
| 357 | HUNTER'S RELOADING SUPPLY | 453.00 | 0.00010 |
| 358 | U.S. SUPPLY COMPANY | 214.00 | 0.00005 |
| 359 | DRUM SILVER RECOVERY | 175.00 | 0.00004 |
| 360 | HY-HO SILVER | 125.00 | 0.00003 |
| 361 | HANCOCK CHEMICAL | 100.00 | 0.00002 |
| 362 | KAUFMAN COUNTY MINT | 75.00 | 0.00002 |
| | | ----- 470,341,812.08 | ----- 100.00000 |

A. Miller & Company, Inc.
1610-12 SW Adams St.
Peoria, IL 61602

Ace Coal Company
West Second St.
Booneville, AR 72927

A. Tenenbaum
4506 Bethany Road
North Little Rock, AR 72117

Ace Metal Processors, Inc.
Ace Scrap Metal
5900 Manchester
St. Louis, IL 63110-1999

A.G. Smith Corp.
P.O. Box 25
Kankakee, IL 60901

Acme Premium Supply Corporation
2201 Washington Ave.
St. Louis, MO 63103

ABF Metal Co.
St. Louis, MO

Acro Sales & Engineering, Inc.
W137 N5340 Williams Place
Menomonie Falls, WI 53051

AT&T/Nassau Smelting & Refining Corp.
Mr. Alan Schlesinger
Room 4W-124
1 Oakway
Berkley Heights, NJ 07002

Active Metal Co.
5150 16th St.
Detroit, MI 48208

Aaron Fener & Sons Co.
P.O. Box 6478
Church Street Station
New York, NY 10024

Afram Bros., Co.
900 South Water St.
Milwaukee, WI 53204

Allied Metal Company, Inc.
South Canal Street
Chicago, IL 60616

Astron Manufacturing Co.
12th & Mc Kinney Sts.
Chicago, IL 60605

Alter Company, Inc.
Bernard Golcstein, President
2733 Rockingham Road
Davenport, IA 52816

Ashley Salvage
4918 Roosevelt
San Antonio, TX 78214

Allied Signal Inc.
Frestolite Batteries
P.O. Box 278
Manchester, IA 52057

Anderson Steel, Inc.
P.O. Box 448
Fairfield, IA 52566

Aeac, Inc.
200 Park Avenue
New York, NY 10165

A & W Battery
1316 State Street
New Albany, IN 47150

American Can Co.
755 Prior Ave.
St. Paul, MN 55104

Aetna Metals
13535 Helen Street
Detroit, MI 66208

American Recycling
Route 1 - Box 11
Martinton, IL 60951

American Industrial Linings, Inc.
1390 Kingsland Avenue
St. Louis, MO 63133

Asarco
1800 Maiden Lane
New York, NY 10038

Asarco
120 Broadway
New York, NY 10271

Bell's Salvage
P.O. Box 703
Holt, MO 64501
Canaan, IL 60474

Bell's Salvage
P.O. Box 703
Holt, MO 64501
Canaan, IL 60474

Bell's Salvage
P.O. Box 703
Holt, MO 64501
Canaan, IL 60474

B.C. Battery
3016 Taylor Blvd.
Louisville, KY

Bell Metal & Chemical
P.O. Box 616
Greenville, TN 37743

Battery Salvage
1966 Bluff Road
Indianapolis, IN 46225

Behr Metals
P.O. Box 740
Rockford, IL 61105

Belson Scrap & Steel
P.O. Box 147
Kankakee, IL 60901

Bell's Salvage
P.O. Box 703
Holt, MO 64501
Canaan, IL 60474

Bear Manufacturing
P.O. Box 10159
Rock Island, IL 62201

Becker Metals Corp.
P.O. Box 14008-B
805 South 22nd St.
St. Louis, MO 63178

Ber Greerberg Co.
P.O. Box 450
Dyersburg, TN 38024

Benjamin Air Rifle Co.
1225 South Eighth St.
St. Louis, MO 63104

Bills Auto Parts
471 South Capital Avenue
Corydon, IN 47112

Bob Benstein
P.O. Box 696
Oskaloosa, IA 52577

Bomgars Supply
P.O. Box 3408
Sioux City, IA 51102

CEI Inc.
2001 Fairfax Traffic Way
Kansas City, MO 66115

Bruco Battery Company
8125 Skokie Blvd.
Skokie, IL 60076

DNC Industries, Inc.
370 Crossen
Elk Grove Village, IL 60007

Call Publishing Company, Inc.
9 North Division Street
DuQuoin, IL 62832

Calvert Scrap Lead
314 Water Street
Booneville, MO 65233

Campbell Soup Co.
Campbell Place
Camden, NJ 08101-0391

Cash's Scrap Metal & Iron
3001 N. Broadway
St. Louis, MO 63107

Central Iron & Metal Company
P.O. Box 1180
Springfield, IL 62705

Cedartown Industries
P.O. Box 907
Troy, AL 36081

Charles W. Johnson
503 North Sangamon
Lincoln, IL 62656

Central Waste Material Company
1510 North Broadway
St. Louis, MO 63102

Chanen's Inc.
P.O. Box 766
Quincy, IL 62301

Centritech Corporation
P.O. Box 14532
Houston, TX 77021

Chemetco, Inc.
Highway 3 & Oldenburg Rd.
Martford, IL 62048

Chicago Battery
638 North Sacramento Blvd.
Chicago, IL 60612

Cerro Copper Products
P.O. Box 93739
Chicago, IL 60670

C.L. Downey Company
9th & Colfax Ave.
P.O. Box 857
Herricks, MO 62411

Delta Auto Radiator
1434 E. Eldorado Street
Decatur, IL 62521

Concord Printing and Stationery Co.
1611 Locust St.
St. Louis, MO 63103

Daniel Radiator
P.O. Drawer 3568
Houston, TX 77001

Commercial Metals Company
P.O. Box 1143
7800 Stearns Highway
Dallas, TX 75217-1143

Delhi Battery & Supply
3001 LaSalle
St. Louis, MO

Delta Metals & Paper Recycling
1436 Mullanphy
St. Louis, MO 63106

Continental Can Company
Client Continental Can Co.
800 Connecticut Ave.
P.O. Box 5410
Norwalk, CT 06855

Diamond Scrap Yard
P.O. Box 10
Waukegan, IL 60085

Crown Coil & Seal Company
5700 Ashton Road
Philadelphia, PA 19136

Discount Battery Sales
1434 E. Eldorado Street
Decatur, IL 62521

Delco Ray Division
General Motors Corporation
3031 West Grand Ave.
P.O. Box 33122
Detroit, MI 48202

Drum Silver Recovery
P.O. Box 1199
Noble, OK 73068

Duggan Industries
3901 S. Lamar
Dallas, TX 75222

Diversified Metals
1034 South Brentwood Blvd.
Richmond Heights, MO 63117

Dumes, Inc.
1640 N. 6th Street
Vincennes, IN 47591

Don Hibbler
12814 Sycamore Lane
Palos Heights, IL 60462

Ed Parkinson
129 South Ely
Mounds, IL 62964

Elden R. Erickson & Sons, Inc.
5383 Swanson Road
Rosco, IL 61073

Electro Battery
12201 Dorsette Road
Maryland Heights, MO 63403

Eli Rosemons
P.O. Box 1002
Ottumwa, IA 52501

E.L. Pfeiffer Iron & Metal
500 South First
Stockton, CA 95210

Edwardsville Intelligence
Edwardsville Publishing Company
117 North Second Street
Edwardsville, IL 62025

Far West Sports
13313 Reeder Road S.W.
Olympia, WA 98502

Far West Sports, Inc.
4702 20th East
Tacoma, WA 98402

Federal Cartridge Corporation
900 Ehler Drive
Anoka, MN 55303-1778

Fundamental Metals & Minerals
2 Executive Drive
Fort Lee, NJ 07024

Farmland Industries, Inc.
Robert Terry
P.O. Box 7305
3315 North Oak Trafficway
Kansas City, MO 64116

Federal Iron & Metal Co.
6820 St. Charles Rock Road
St. Louis, MO 63133

Feinberg Brothers I & M
1335 Cypress
Kansas City, MO 64127

Fisher Steel
259 Ottawa
Box 567
Muskegon, MI 49443

Fleenor Battery
1616 Wyoming
Kansas City, MO 64102

Fort Dodge I & M
116 Central Avenue
Ft. Dodge, IA 50501

Galaxy Metals
Suite 20M
200 East 57th St.
New York, NY 10022

Gary's Metals, Inc.
RR 3, Box 290
Carterville, IL 62918

Gebco Machine, Inc.
2900 Emzee
Granite City, IL 62040

General Motors Corporation
Fisher Body Division
3031 West Grand Blvd.
P.O. Box 33122
Detroit MI 48222

General Electric
P.O. Box 2001
Danville, IL 61831

General Motors Corporation
3809 North Union Blvd.
St. Louis, MO 68115

General Motors Corporation
3809 North Union Blvd.
St. Louis, MO 68115

General Motors Corporation
Fisher Body Division
3031 West Grand Blvd.
P.O. Box 33122
Detroit, MI 48232

Glosser Metal Company
P.O. Box 114
Hidalgo, IL 62432

General Services Administration
Chicago Real Estate Sales Field Office
230 South Dearborn St.
Room 3316
Chicago, IL 60604

Glosser Metal Company
Box 31, Route 2
Greenup, IL 62428

General Waste Products, Inc.
P.O. Box 6690
201 South 7th Avenue
Evansville, IN 47730

Grossman I & S
#5 North Market Street
St. Louis, MO 63102

Gale & Metals
Suite 204
200 East 5th St.
New York, NY 10022

Gopher Smelting & Refining
3385 Highway 49
St. Paul, MN 55121

Gary's Metals, Inc.
Rt. 3, Box 290
Canterville, IL 62918

Gould Inc.
10 Gould Center
Rolling Meadows, IL 60008

Gebco Machine, Inc.
2900 Eazeo
Granite City, IL 62040

Graham Metal Corporation
412 Graham Avenue
Benton Harbor, MI 49022

Business Metal Co. Inc.
Elmwood Market Street
St. Louis, MO 63102

Henry Rautbort
517 West Van Buren
Clinton, IL 61727

H. Shadix & Son
P.O. Box 123
Platteville, WI 53589

Highland Park Waste Material
1466 Berkeley Road
Highland Park, IL 60035

Houston Scrap
3800 Jensen Cavaleade
Houston, TX 77026

H.W. Jones & Son, Inc.
2114 Eighth Avenue
East Moline, IL 61244

Hy-Ho Silver
4602 Tompkins Drive
Madison, WI 53716

H.B. Kaplan Scrap Iron & Metal
P.O. Box 3626
St. Paul, MN 55165

Hy-Ho Silver
6411 Windson Prairie Road
De Forest, WI 53532

H. Brown Company
2200 Turner Avenue NW
Grand Rapids, MI 49504

Henry Rautbort
517 West Van Buren
Clinton, IL 61727

H.S. Kaplan Scrap Iron & Metal
P.O. Box 3626
St. Paul, MN 55165

Highland Park Waste Material
1466 Berkeley Road
Highland Park, IL 60035

Hancock Chemical
2208 Summer Street
Dallas, TX 75202

Houston Salvage
1335 West Highway 17
Houston, MO 65463

Harold Rodick
Route 2
Eldorado Springs, MO 64744

Hunter's Reloading Supply
1210 S. Michael Street
Cahokia, IL 62206

Heekin Can
11310 Cornell Park Drive
Cincinnati, OH 45242

Intercontinental Refining Co. Inc.
551 East 119th St.
Chicago, IL 60628

ICMS
9007 First Street
Baroda, MI 49191

Inland Metals Refining Co. Inc.
551 East 119th St.
Chicago, IL 60628

Inland Metals Refining Co., I
53 W. Jackson Blvd. #1122
Chicago, IL 60604

Jamil Products
614 Rollingbrook
Houston, TX 77071

Intercontinental Refining Co.
5400 Truman Road
Kansas City, MO 64125

James H. Tessem
1705 Northeast Perry
Peoria, IL 61603

Insel Corporation
805 Third Ave.
New York, NY 10022

Jay Metal Processing
1302 Northeast 29th
Ft. Worth, TX 76106

J. Solomon & Sons
17th and Cedar Sts.
Detroit, IL 62314

Jerry Prather
1401 S. Locust
Centralia, IL 62801

Jordon Heiman
110 Stoneyside Lane
St. Louis, MO 63132

J. Trockman & Sons, Inc.
P.O. Box 682
Highway 41 South
Evansville, IN 47702

Johnson Metal Co.
3056 Hamilton Ave.
Racine, WI 53403

I. Deutch Company
311 Baymiller Street
Cincinnati, OH 45203

James H. Tessem
1705 Northeast Perry
Peoria, IL 61603

I.J. Sobel & Sons
1466 Berkely Road
Highland Park, IL 60035

Standard Oil Corporation
200 Building Square
Cleveland, OH 44114
E. Frank J. J. J., President

Standard Oil Corporation
200 Building Square
Cleveland, OH 44114
E. Frank J. J. J., President

Standard Oil Corporation
200 Building Square
Cleveland, OH 44114
E. Frank J. J. J., President

Ladyman Engineering Enterprise
723 Kirkwood Drive
Dallas, TX 76128

Kasmar Metal, Inc.
160 River Road
Hinckley, OH 44233

Lake Iron
P.O. Box 830
Hammond, IN 46325

Kaufman County Mint
202 South Blanche
Terrell, TX 75160

L. Kahn & Son
P.O. Box 569
410 South Water Street
Havana, IL 62644

Kavanaugh Salvage
P.O. Box 67
Hamilton, MO 64644

La Salle Steel Co.
1412 East 15th Street
Hammond, IN 46327

Kemco Metal
123 Byassee Drive
Hazelwood, MO 63042

K.M. Battery
Mc Dermott, Will & Emery
111 West Monroe St.
Chicago, IL 60603
ATTN: Janice M. Edwards

Karen Iron & Metal Co.
800 East 21st
P.O. Box 465
Wichita, KS 67241

Larry Good & Company
260 Old State Road
Ellisville, MO 63011

M. Ruben Metal Co.
2416 S. Archer Co.
Chicago, IL 60616

Lafayette Iron & Metal Company
P.O. Box 219
215 South 17th St.
East St. Louis, IL 62202

M.B. Kaplan Company/Sun Steel Divsn.
666 North Lake Shore Dr.
Chicago, IL 60611

Leslie Cooper Bentley & Metal
P.O. Box 4166
Javenport, IA 52806

MacGlashen Enterprises
1641 South Sinclair
Anaheim, CA 92806

Lissner Corporation
Michael W. Lissner, Pres.
1000 N. Branch St.
Chicago, IL 60622
Michael W. Lissner, Pres.

Madewell & Madewell
P.O. Box 386
Jones, OK 73049

Madewell Metals Corporation
310 Shawnee Bypass
P.O. Box 1432
Muskogee, OK 74401

Lopez Scrap Metal, Inc.
P.O. Box 17741
331 Navaret Road
El Paso, TX 79917

Madison Scale Co., Inc.
3106 Commercial Ave.
Madison, WI 53714

Luria Brothers & Company
P.O. Box 285
Chesterton, IN 46304

Mallin Brothers Co., Inc.
3211 Gardner Avenue
Kansas City, MO 64120

Macco Industries
P.O. Box 218
Mooreville, IN 46158

Mardians Inc./Mardians Trading Post
P.O. Box
Mobridge, SD 57601

Master Metals
2850 W. Third
Cleveland, OH 44113

Max Schneider Company
P.O. Box 1234
South Bend, IN 46624

M. Gervich & Son, Inc.
707 East Nevada St.
P.O. Box 67
Marshalltown, IA 50158

Max Schwartzman & Sons, Inc.
2905 North Ferry
Anoka, MN 55303

M. Katch & Co., Inc.
P.O. Box 619
503 Branner
Topeka, KS 66616

McGraw-Edison Co.
Bussean Manufacturing Division
502 Earth City Plaza
P.O. Box 14460
St. Louis, MO 63178

McKinley Iron
3620 North Hall Street
St. Louis, MO 64147

Modine Manufacturing Co.
1500 Dekoven Avenue
Racine, WI 53401

Metal Recycling
P.O. Box 628
Little Rock, AK 72203

Moorimet, Inc.
218 E. Courtois
St. Louis, MO 63111

Metran, Inc.
P.O. Box 637
Morton Grove, IL

Morris Tack Company, Inc.
P.O. Box 3095
501 East Stewart St.
Bloomington, IL 61701

Metro Metals Recyclers
2515 Iowa Street
St. Louis, MO 63104

Murphysboro Iron & Metal
1700-1900 Gartside
Murphysboro, IL 62966

Metro Metals Recyclers
6149 Olive Lane
St. Louis, MO 63130

National Metal Company
8379 Lowell Avenue
Skokie, IL 60076

Mid-Missouri Metal
P.O. Box 5-7
South I-70 Service Road
Wentzville, MO 63385

National Typographers Inc.
914 Pine Street
St. Louis, MO 63101

Midwest Iron & Metal
6760 N. Industrial Road
Milwaukee, WI 53223

New Castle
Samson Street Extension
P.O. Box 1408
New Castle, PA 16105

Mike Asfoor & Sons
310 St. Andrews
LaCrosse, WI 54601

Norm's Metal Company
739 West Oak
Louisville, KY 40203

Miller Compressing Company
P.O. Box 369
Milwaukee, WI 53201

Northbrook Sports Club
P.O. Box 766
North Allegheny Rd
Grayslake, IL 32250

Milwaukee Scrap Metal
1236 W. Pierce Street
Milwaukee, WI 53204

Northern Metals Inc.
70 Dock St.
St. Louis, MO 63147

Missouri Iron & Metal Co., Inc.
754 South Fourth St.
P.O. Box 33
St. Joseph, MO 64501

Northwestern Bell Telephone Co.
U.S. West Inc.
7800 E. Orchard Road
Englewood, CO 30111

Modern Printing Company
2617 Oliver Street
St. Louis, MO 63103

O'Dell Iron & Metal
100 State Street
Madison, IL 62060

Ohio New and Rebuilt
100 Keller Drive
Wapakoneta, OH 45895

Ohio Iron & Metal Company
4301 South Lamar
P.O. Box 15704
Dallas, TX 75215

Old Ironside
1020 Highway 67 West
Campbellsport, IA 53010

Otto Radio Electric Corp.
1100 Silver Lake
Gary, IL 60137

Otto Lenz
415 Hillside
Farmington, MD 63640

Overland Metals, Inc.
6510 Lackland Road
Overland, MO 63114

Parkans International Inc.
P.O. Box 15519
5221 Armour Drive
Houston, TX 77020

Parks I & M
4250 N. 35th Street
Milwaukee, WI 53209

Peltz Brothers
4900 N. 32nd Street
Milwaukee, WI 53209

Peoria Battery Co.
10223 North Knoxville
Peoria, IL 61615

Pet, Inc.
400 South Fourth St.
St. Louis, MO 63166

Penn Dixie Steel
1111 S. Main Street
Kokomo, IN 46902

Plough, Inc.
3022 Jackson
Memphis, TN 38151

Plumbing Joint Apprenticeship
Training Committee
5733 Elizabeth Avenue
St. Louis, MO 63110

Pollack Hide & Fur
P.O. Box 658
Cape Girardeau, MO 63701

Pollack Hide & Fur
342 River Oaks Road
Memphis, TN 38119

Prarie Steel Co.
P.O. Box 254
Havana, IL 62644

Price Watson Company
1909 North Clifton Ave.
Chicago, IL 60614

Prime Battery Sales
Route 7 - Box 103
Benton, KY 42025

Rankin Technical Institute
4431 Finney Ave.
St. Louis, MO 63113

Red Diamond Manufacturing Company
RR 2, Box 828
Hot Springs, AR 71901

Redfield I & M
ZR 359
Redfield, SD 57469

Reeves Scrap Metal
6900 Brush Island Road
North Little Rock, AR 72117

Reinert-Preisler Electrottype Co
914 Pine Street
St. Louis, MO 63101

Reliance Battery Manufacturing
2204 South 8th St.
Council Bluffs, IA 51501

Remak Industries
Equipment Engineering Co.
P.O. Box 396
Olive Branch, MS 38654

Reynolds Electric
Granite City, IL

Rich Battery & Metal
P.O. Box 3491
Davenport, IA 52808

Del Rich Battery & Metal Co.
510 Schmidt Road
Davenport, IA 52808

Rosak Industries
P.O. Box 376
Olive Branch, MS 38654

Rosen Metals
P.O. Box 121
Baldwin, WI 54002

Roth Brothers Smelting Corp.
P.O. Box 639
6223 Thompson Road
East Syracuse, NY 13057

S & G Metal Industries
P.O. Box 2039
Kansas City, MO 66110

S & R Metals
5845 South May Street
Chicago, IL 60621

Sadoff I & M
P.O. Box 1138
Fon Du Lac, WI 54935

Salvage Battery
P.O. Box 179
Mishicot, WI 54228

San Allen & Son, Inc.
P.O. Box 2
500 Collier Road
Pontiac, MI 48056

Sanders Lead Co., Inc.
Box 707, Sanders Road
Troy, AL 36081

Samuel Hise & Metal
56 East Hunt
Paragould, AR 72121

Scheer Shooting Supplies, Inc.
330 West Eagle
Arlington, NE 68002

Seidenfeld & Son Iron & Metal
821 Southeast 21st St.
Des Moines, IA 50309

Shanfield Bros.
70 Dock St.
St. Louis, MO 63147

Shank Metals, Inc.
1410 Pierce Ave
St. Louis, MO 63110

Shapiro Sales Co.
5040 North Second St.
St. Louis, MO 63147

Schuster Metals
2206 N. 30th
Milwaukee, WI 53208

Shapiro Brothers
9th & Delmar
Festus, MO 63028

Shostak Iron & Metal
700 Kindelberger Road
Kansas City, KS 66115

Sioux City Compressed Steel
214 Court Street
Sioux, IA 51101

Slesnick I & M
927 Warner Road S.E.
Canton, OH 44707

Box 1000
100 East Main St.
P.O. Box 1000
Little Rock, AR 72201

Sol Tick & Co.
901 Eldorado St.
Box 30
Decatur, IL 62525

Southern Metal Processing
6326 Broadway
P.O. Box 2857
St. Louis, MO 63111

Southwestern Bell Telephone Co.
15400 East Truman Road
Independence, MO 64050

Spartan Printing Company
World Color Press, Inc.
Second and Dickey Streets
Sparta, IL 62286

Springfield Battery Co.
2645 East Cook St.
Springfield, IL 62707

St. Louis Law Printing Co.
812 Arcade Building
St. Louis, MO 63101

St. Louis Lead Recycling Co.
P.O. Box 29
Granite City, IL 62040

Staab Battery
931 South 11th Street
Springfield, IL 62703

Stan Toebben
Route 5
Jefferson City, MO 65101

Standard Storage Battery Co.
2286 Capp Road
St. Paul, MN 55114

Stanford Linear Accelerator Center
P.O. Box 4349
Stanford, CA 94305

Stewart Warner Corp.
1514 Drover Street
Indianapolis, IN 46221

Steel Baling Co., Inc.
1901 Converse
P.O. Box 406
East St. Louis, IL 62202

Straightway Iron & Metal Co.
1936 Cole Street
St. Louis, MO 63106

Superior Company's Inc.
1610 N. Calhoun Street
Fort Wayne, IN 46808

Superior Typesetting Company
1709 Washington Ave.
St. Louis, MO 63101

Suppo Smelting & Refining Co.
Registered Agent: Martin I. Suppo
1060 Summit Drive
Deerfield, IL 60015-1823

Sure Start Battery Company
6767 St. Charles Rock Road
St. Louis, MO 63133

Swan Rubber Co.
Rt #2
4115 North Perkins Road
Stillwater, OK 74059

T.G. Marshall Manufacturing Co.
4326 Riverline Dr.
Earth City, MO 63405

Thermal Corp.
P.O. Box 40445
Houston, TX 77040

Thermal Corp.
10500 Windfern Road
Houston, TX 77064

Top Metal Buyer
808 Walnut Street
E. St. Louis, IL 62201

Triangle Metallurgical
P.O. Box 45
Granite City, IL 62040

Trinity Scrap
4330 Grayton
Detroit, MI 48224

U.S. Department of Justice
Unicor Federal Prison, Inc
Sandstone, MN 55072

U.S. Scrap & Metal Co.
P.O. Box 1484
550 Southside Dr.
Decatur, IL 62526

U.S. Supply Company
901 Farnam Street
Omaha, NE 68102

USE Lead Refinery Inc.
Sharon Steel Corporation
Roemer Boulevard
Sharon, PA 16146

Unique Art Glass
3649 Market Street
St. Louis, MO 63110

United Scrap Lead Co., Inc.
P.O. Box 25
Troy, OH 45373

V.H. Holmes, Inc.
752 Big Cork Road
Richmond, VA 24641

Versatile Metals
P.O. Box 97728
Chicago, IL 60690

Vince Jacks Iron & Metal Co.
6609 Manchester Ave.
St. Louis, MO 63139

Vincent Brass & Aluminum
3334 Rand Road
Indianapolis, IN 46241

Vivo I & M
636-646 Wilson
Youngstown, IA 44506

W.R. Lewis Supply
P.O. Box 49
Burnt Prairie, IL 62820

Waddell Brothers Metal Company
P.O. Box 338
Blue Grass, IA 52726

Wallach I & M
6670 St. Charles Roack Road
Wellston, MO 63133

West End Hide & Fur
Box 1578
Jamestown, ND 58410

West Kentucky Battery
Route #7
Benton, KY 42025

Western Electric Co.
2651 Olive Street
St. Louis, MO 63103

Western Gun & Supply
P.O. Box 1848
Grand Island, NE 68801

Wicks Organ Company
1100 Fifth Street
P.O. Box 129
Highland, IL 62249

William Lans Son Company
201 Wheeler Avenue
South Beloit, IL 61080

Willoughby Iron
3884 Church Street
Willoughby, OH 44094

World Metal Buyers
1345 W. Lark Industrial Court
Fenton, MO 63026

Young Radiator Co.
2825 Four Mile Road
Racine, WI 53404

CONSENT DECREE

TABLE OF CONTENTS

| | | |
|--------|--|----|
| I. | <u>PURPOSE OF DECREE</u> | 5 |
| II. | <u>JURISDICTION</u> | 5 |
| III. | <u>PARTIES BOUND</u> | 5 |
| IV. | <u>DEFINITIONS</u> | 6 |
| V. | <u>GENERAL PROVISIONS</u> | 12 |
| VI. | <u>PERFORMANCE OF THE WORK BY SETTLING DEFENDANTS</u> | 17 |
| VII. | <u>ADDITIONAL WORK AND MODIFICATION OF THE SOW</u> | 22 |
| VIII. | <u>U.S. EPA PERIODIC REVIEW TO ASSURE PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT</u> | 23 |
| IX. | <u>QUALITY ASSURANCE</u> | 24 |
| X. | <u>FACILITY ACCESS, SAMPLING, DOCUMENT AVAILABILITY</u> | 25 |
| XI. | <u>REPORTING REQUIREMENTS</u> | 27 |
| XII. | <u>REMEDIAL PROJECT MANAGER/PROJECT COORDINATORS</u> | 29 |
| XIII. | <u>FORCE MAJEURE</u> | 30 |
| XIV. | <u>DISPUTE RESOLUTION</u> | 32 |
| XV. | <u>RETENTION AND AVAILABILITY OF INFORMATION</u> | 36 |
| XVI. | <u>REIMBURSEMENT</u> | 38 |
| XVII. | <u>STIPULATED PENALTIES</u> | 40 |
| XVIII. | <u>COVENANT NOT TO SUE</u> | 45 |
| XIX. | <u>INDEMNIFICATION; OTHER CLAIMS</u> | 48 |
| XX. | <u>INSURANCE/FINANCIAL RESPONSIBILITY</u> | 49 |
| XXI. | <u>NOTICES</u> | 50 |
| XXII. | <u>CONSISTENCY WITH NATIONAL CONTINGENCY PLAN</u> | 51 |
| XXIII. | <u>ENDANGERMENT AND EMERGENCY RESPONSE</u> | 51 |

| | | |
|-------|---|----|
| XXIV. | <u>COMMUNITY RELATIONS</u> | 52 |
| XXV. | <u>RETENTION OF JURISDICTION; MODIFICATION</u> | 53 |
| XXVI. | <u>EFFECTIVE DATE AND CERTIFICATION OF COMPLETION</u> . . | 53 |

CONSENT DECREE

WHEREAS, The United States Environmental Protection Agency ("U.S. EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), 42 U.S.C. (9605, placed the NL Industries/Taracorp Site in Granite City, Illinois (the "Facility" as specifically defined in Paragraph 4 of this Consent Decree) on the National Priorities List, which is set forth at 40 CFR Part 300, Appendix B, by publication in the Federal Register on October 15, 1984, 49 Fed. Reg. 40320 (1984);

In response to a release or a substantial threat of a release of a hazardous substance at or from the Facility, U.S. EPA signed an Administrative Order By Consent with NL Industries, Inc. on March 11, 1985, to conduct a Remedial Investigation and Feasibility Study ("RIFS") pursuant to 40 CFR 300.68 for the Facility;

NL Industries completed a Draft Remedial Investigation ("RI") Report in September, 1988. U.S. EPA accepted the draft report with modifications on January 10, 1989. NL Industries completed a Draft Feasibility Study ("FS") Report in August, 1989. The FS Report was released to the public by U.S. EPA, with modifications, on January 10, 1990.

On or about January 10, 1990, U.S. EPA, pursuant to Section 117 of CERCLA, 42 U.S.C. (9617, published notice of the completion of the RIFS and of the proposed plan for remedial

action, in a major local newspaper of general circulation and provided opportunity for public comment to be submitted in writing to U.S. EPA by February 24, 1990, or orally at a public meeting held in Granite City, Illinois, on February 8, 1990. U.S. EPA subsequently agreed to accept written public comments until March 12, 1990.

U.S. EPA, pursuant to Section 117 of CERCLA, 42 U.S.C. (9617, has kept a transcript of the public meeting and has made this transcript available to the public as part of the administrative record located at U.S. EPA, Region V, 230 South Dearborn Street, Chicago, Illinois and at the Granite City Public Library, 2001 Delmar Avenue, Granite City, IL 62040.

On or about November 28, 1989 or April 9, 1990, U.S. EPA, pursuant to Section 122 of CERCLA, 42 U.S.C. (9622, notified certain parties that the U.S. EPA determined each party to be a potentially responsible party ("PRP") regarding the proposed remedial action at the Facility;

In accordance with Section 121(f)(1)(F) of CERCLA, 42 U.S.C. (9621(f)(1)(F), U.S. EPA notified the State of Illinois on _____, 1990 of negotiations with PRPs regarding the scope of the remedial design and remedial action for the Facility, and U.S. EPA has provided the State with an opportunity to participate in such negotiations and be a party to any settlement;

Pursuant to Section 122(j) of CERCLA, 42 U.S.C. (9622(j), on June 27, 1990, U.S. EPA notified the Federal natural resource

trustee of negotiations with PRPs on the subject of addressing the release or threatened release of hazardous substances at the Facility;

Certain persons have provided comments on U.S. EPA's proposed plan for remedial action, and to such comments U.S. EPA provided a summary of responses, all of which have been included in the administrative record referred to above;

Considering the proposed plan for remedial action and the public comments received, U.S. EPA has reached a decision on a final remedial action plan, which is embodied in a document called a Record of Decision ("ROD") signed by the Regional Administrator on March 30, 1990, (attached as Appendix 1 hereto), to which the State has given its concurrence, and which includes a discussion of U.S. EPA's reasons for the final plan and for any significant changes from the proposed remedial action plan contained in the FS;

U.S. EPA, pursuant to Section 117(b) of CERCLA, 42 U.S.C. (6917(b)), has provided public notice of adoption of the final remedial action plan set forth in the ROD, including notice of the ROD's availability to the public for review in the same locations as the administrative record referred to above;

Pursuant to Section 117(d) of CERCLA, 42 U.S.C. (9617(d)), the notice has been published in a major local newspaper of general circulation, and the notice includes an explanation of any significant changes from the proposed remedial action plan contained in the FS and the reasons for such changes;

Pursuant to Section 121(d)(1) of CERCLA, 42 U.S.C. (6921(d)(1), U.S. EPA, the State, and Settling Defendants ("the Parties") believe that the remedial action plan adopted by U.S. EPA will attain a degree of cleanup of hazardous substances, pollutants and contaminants released into the environment and of control of further release which at a minimum assures protection of human health and the environment at the Facility;

The Parties believe the remedial action plan adopted by U.S. EPA, in consultation with the State, will provide a level or standard of control for such hazardous substances, pollutants, or contaminants which at least attains legally applicable or relevant and appropriate standards, requirements, criteria, or limitations under Federal environmental law or State environmental or facility siting law in accordance with Section 121(d)(2) of CERCLA, 42 U.S.C. (9621(d)(2), and that the remedial action plan is in accordance with Section 121 of CERCLA, 42 U.S.C. (9621, and with the National Contingency Plan ("NCP"), 40 CFR Part 300;

Settling Defendants agree to implement the final remedial action plan adopted by U.S. EPA in the ROD as set forth in Appendix 1 to this Consent Decree and incorporated by reference into this Decree, and U.S. EPA has determined that the work required under the Consent Decree will be done properly by Settling Defendants and that Settling Defendants are qualified to implement the remedial action plan contained in the ROD; and

The Parties recognize, and intend to further hereby, the public interest in the expedition of the cleanup of the Facility and in avoiding prolonged and complicated litigation between the Parties;

NOW, THEREFORE, it is hereby Ordered, Adjudged and Decreed:

I. PURPOSE OF DECREE

1. The purpose of this Consent Decree is to provide for implementation by Settling Defendants of the final remedial design and remedial action for the Facility selected by U.S. EPA, in consultation with the State, as set forth in the Record of Decision attached as Appendix 1, and to provide for payment of certain response costs incurred and to be incurred by the United States and the State for the Facility.

II. JURISDICTION

2. This Court has jurisdiction over the subject matter herein pursuant to 28 U.S.C. ((1331(a) and 1345, and 42 U.S.C. ((9613(b) and 9622(d)(1)(A), and over the parties consenting hereto. Settling Defendants hereby waive service of the summons and complaint in this action. Settling Defendants shall not challenge this Court's jurisdiction to enter and enforce this Consent Decree.

III. PARTIES BOUND

3. This Consent Decree applies to and is binding upon the undersigned parties and their agents, successors and assigns. The undersigned representative of each party to this Consent

Decree certifies that he or she is fully authorized by the party or parties whom she or he represents to enter into the terms and conditions of the Consent Decree and to execute and legally bind that party to it. Settling Defendants shall provide a copy of this Consent Decree to the contractor(s) hired to perform the work required by this Consent Decree and shall require the contractor(s) to provide written notice of the decree to any subcontractor retained to perform any part of the work.

IV. DEFINITIONS

4. Whenever the following terms are used in this Consent Decree and the Appendices attached hereto, the following definitions shall apply:

"Cleanup Standards" means the requirements respecting the degree of cleanup of groundwater, surface water, soil, air or other environmental media that must be achieved by the remedial action, as set forth in the ROD, para. 12 of this Decree, and pp. two and three of the SOW.

"Consent Decree" means this Decree and all appendices hereto. In the event of conflict between this Decree and any appendix, the Decree shall control.

"Contractor" means the company or companies retained by or on behalf of Settling Defendants to undertake and complete the work required by this Consent Decree. Each contractor and subcontractor shall be qualified to do those portions of the work for which it is retained. Each contractor and subcontractor

shall be deemed to be related by contract to each Settling Defendant within the meaning of 42 U.S.C. (9607(b)).

"Expanded Taracorp Pile" means the existing Taracorp Pile as expanded by its consolidation with the St. Louis Lead Recyclers Piles and residential soils and battery case material added to the Taracorp Pile.

"Facility" refers to the location where treatment, storage, disposal or other placement of hazardous substances was derived from operations conducted by NL Industries, Inc. (formerly National Lead) and/or Taracorp, Inc., whose operations are located in Granite City, Madison County, State of Illinois, including, but not limited to, areas 1-8 and designated areas of Eagle Park Acres and Venice, as shown more particularly on the maps attached to the Record of Decision as Figures 5, 6, 7.

"Hazardous substance" shall have the meaning provided in Section 101(14) of CERCLA, 42 U.S.C. (9601(14)).

"IEPA" means the Illinois Environmental Protection Agency.

"National Contingency Plan" or "NCP" means the term used in Section 105 of CERCLA, 42 U.S.C. (9605 and is promulgated at 40 CFR Part 300.

"Oversight Costs" means any costs not inconsistent with the National Contingency Plan incurred by U.S. EPA and the State of Illinois in monitoring the compliance of the Settling Defendants with this Consent Decree, including but not limited to payroll and other direct costs, indirect and overhead costs, sampling and

laboratory costs, travel, contractor costs and costs of review of the work performed pursuant to this Consent Decree.

"Owner Settling Defendants" refers to NL Industries, Taracorp, Inc., and Trust 454.

"Parties" means the United States of America, the State of Illinois and the Settling Defendants.

"RD/RA Work Plan" means the plan for the design of the remedial action for the Facility, as described in para. 13(a).

"Record of Decision" or "ROD" means the administrative Record of Decision issued by U.S. EPA setting forth the remedial action requirements for the Facility, attached as Appendix 1 hereto.

"Remedial Project Manager" or "RPM" means the person designated by U.S. EPA to coordinate, monitor or direct remedial activities at the Facility pursuant to 40 CFR 300.33 and Section XII hereof.

"Residential Areas" means residential housing and any area where children are routinely exposed to soils, such as schools, parks, playgrounds, day care facilities, and religious institutions.

"Response Costs" means any costs not inconsistent with the National Contingency Plan incurred by the United States and the State of Illinois pursuant to 42 U.S.C. ((9601 et seq.

"Scope of Work" or "SOW" means the plan, set forth as Appendix 2 to this Decree, for implementation of the remedial design and remedial action at the Facility pursuant to the Record

of Decision, and any subsequent amendments of Appendix 2 pursuant to the provisions of this Decree.

"Settling Defendants" means those parties other than the United States of America or the State of Illinois who sign this Consent Decree.

"State" means the State of Illinois.

"St. Louis Lead Recyclers Piles" or "SLLR Piles" means the waste piles which were created by or a part of the operations of St. Louis Lead Recyclers, Inc.

"Taracorp Pile" means the waste pile on or near the Site.

"United States" means the United States of America.

"U.S. DOJ" means the United States Department of Justice.

"U.S. EPA" means the United States Environmental Protection Agency.

"Work" means the design, construction and implementation, in accordance with this Consent Decree, of the tasks described in the ROD, this Decree, the Scope of Work, the Work Plan(s), and any other plans or schedules submitted and approved by U.S. EPA pursuant to this Decree or the SOW. The following are the major components of the Remedial Action:

- a. Installation of an upgraded security fence around the Expanded Taracorp Pile.
- b. Deed Restrictions and other institutional controls to ensure protection of the Taracorp Pile.

- c. Performance of soil lead sampling to determine which areas must be excavated and the extent of the excavation.
- d. Inspection of alleys and driveways and areas containing surficial battery case material in Venice, Eagle Park Acres, Granite City, Madison and any other nearby communities to determine whether additional areas not identified in the Feasibility Study must be remediated.
- e. Performance of blood lead sampling to provide the community with current data on potential acute health effects associated with site contamination.
- f. Installation of a minimum of one upgradient and three downgradient deep wells, monitoring of groundwater and air, and inspection and maintenance of the cap.
- g. Removal and recovery of all drums on the Taracorp Pile at a secondary lead smelter.
- h. Consolidation of waste contained in an adjacent St. Louis Lead Recyclers Piles with the Taracorp Pile.
- i. Excavation and consolidation with the Taracorp Pile or off-site disposal of battery case material from all applicable alleys and driveways in Venice, Illinois, Eagle Park Acres, and any other nearby communities.
- j. Excavation and consolidation with the Taracorp Pile of all unpaved portions of adjacent Area 1 with lead concentrations greater than 1000 ppm.

- k. Excavation and consolidation with Taracorp Pile or off-site disposal of all residential soils and battery case materials around the site and in Venice, Eagle Park Acres, and any other nearby communities with lead concentrations greater than 500 ppm.
- l. Inspection of the interiors of homes on property to be excavated to identify possible additional sources of lead exposure and recommend appropriate actions to minimize exposure.
- m. Implementation of dust control measures during all remedial construction activities.
- n. Construction of a RCRA-compliant, multi-media cap over the Expanded Taracorp Pile and a clay liner under all newly-created portions of the Expanded Taracorp Pile.
- o. Development and implementation of contingency plans to provide remedial action in the event that the concentration of contaminants in groundwater or lead or PM₁₀ (particulate matter greater than 10 microns) in air exceed applicable standards or established action levels, or that waste materials or soils have become releasable to the air in the future.
- p. Development and implementation of contingency measures to provide for sampling and removal of any soils within the zone of contamination described by the soil lead sampling to be implemented above with lead concentrations above 500 ppm which are presently capped

by asphalt or other barriers but become exposed in the future due to land use changes or deterioration of the existing use.

V. GENERAL PROVISIONS

5. Commitment of Settling Defendants to Perform RD/RA.

a. Settling Defendants agree jointly and severally to finance and perform the Work as defined in paragraph 4 hereof.

b. The Work shall be completed in accordance with all requirements of this Decree, the ROD, the SOW, the RD/RA Work Plan and all other plans or schedules submitted and approved by U.S. EPA under this Decree. The procedures for submission and approval of plans are set forth in Section VI below.

6. Compliance with Applicable Laws; Permits and Approvals

a. All activities undertaken by the Settling Defendants pursuant to this Consent Decree shall be undertaken in accordance with the requirements of all applicable federal and state laws, regulations and permits, as required by CERCLA.

b. Pursuant to Section 121(e)(1) of CERCLA, no federal, state, or local permits are required for work conducted entirely on the Facility. Settling Defendants shall obtain all permits or approvals necessary for work off the Facility under applicable federal, state or local laws and shall submit timely applications and requests for any such permits and approvals.

c. The standards and provisions of Section XIII hereof describing Force Majeure shall govern delays in obtaining permits required for the Work and also the denial of any such

permits, provided that Settling Defendants have made timely and complete application for any such permits.

d. Settling Defendants shall include in all contracts or subcontracts entered into for work required under this Consent Decree, provisions stating that such contractors or subcontractors, including their agents and employees, shall perform all activities required by such contracts or subcontracts in compliance with all applicable laws and regulations.

e. This Consent Decree is not a permit issued pursuant to any federal or state statute or regulation.

7. Formal Approval Required. No informal advice, guidance, suggestions or comments by representatives of the United States or the State on plans, reports or other documents submitted by the Settling Defendants shall be construed as relieving them from obtaining any formal approvals, permits or other authorizations required by law or by this Decree. Further, no advice, guidance, suggestions or comments by such government representatives with respect to any submission by the Settling Defendants shall be construed so as to relieve them of their obligations under this Decree or to transfer any of their liability or obligations under this Decree to any other party or person.

8. Computation of Time. Unless otherwise provided, dates and time periods specified in or under this Decree are in calendar days. If the date for submission of any item or notification required by this Decree falls upon a weekend or

state or federal holiday, the time period for submission of that item or notification is extended to the next working day following the weekend or holiday. Submission shall be deemed accomplished when the item is delivered or mailed to the required party or parties.

9. Conveyance of the Facility and Institutional Controls

a. Copy of Decree to be Recorded. Within thirty days of approval by the Court of this Decree, Taracorp and Trust 454, the "Owner Settling Defendants," shall record a copy of this Decree with the Recorder's Office, Madison County, State of Illinois, in the chain of title for each parcel of Facility property owned by the Owner Settling Defendants.

b. Alienation of Facility. The Facility may be freely alienated provided that at least sixty days prior to the date of such alienation, the Owner Settling Defendant notifies the United States and the State of such proposed alienation, the name of the grantee, and a description of the Owner Settling Defendant's obligations, if any, to be performed by such grantee. In the event of such alienation, all of Settling Defendants' obligations pursuant to this Decree shall continue to be met by all Settling Defendants and the grantee.

c. Notice. Any deed, title or other instrument of conveyance regarding the Facility shall contain a notice that the Facility is the subject of this Consent Decree, setting forth the style of the case, case number, and Court having jurisdiction herein.

d. Institutional Controls. The U.S. EPA and IEPA have determined that institutional controls are necessary to effectuate the remedial action for the facility and to protect the public health or welfare or the environment.

1. Until such time that U.S. EPA notifies Settling Defendants in writing that it is no longer necessary to protect human health and the environment, Settling Defendants shall construct and maintain in good repair a security fence around the perimeter of the Expanded Taracorp Pile and shall prominently display warning signs.

2. The Owner Settling Defendants shall submit to U.S. EPA and the local zoning authority or the authority with jurisdiction over local land use a survey plat. This survey plat shall be submitted within 60 calendar days after completion of the expanded Taracorp pile. The survey plat must be prepared by a professional land surveyor. The survey plat must indicate, at a minimum, permanent benchmarks, all deed and use restrictions on the property and the location and dimension of the expanded Taracorp pile.

3. Sixty (60) calendar days after completion of the expanded Taracorp pile, and until such time as U.S. EPA determines that these restrictions are no longer necessary to protect human health and the environment, the Owner Settling Defendants shall restrict use and access to the Expanded Taracorp Pile, except for U.S. EPA, IEPA and/or either of their authorized representatives, as needed for purposes of conducting maintenance, inspection or

evaluations of the Facility and any other actions necessary for this Order, in such a manner that:

- i. there shall be no use or occupancy of the facility except for the purpose of implementing the remedial actions required by this Administrative Order. Prohibited uses include, but are not limited to, both commercial and recreational uses.
- ii. there shall be no installation, construction or use of any buildings, wells, pipes, roads, ditches or any other structures at the facility except as approved by the U.S. EPA as being consistent with this Consent Decree.

4. Taracorp, Inc. and Trust 454, as the present owners of the Facility, shall record in accordance with State law a notation on the deed to the Facility property or on some other instrument which is normally examined during title search that will notify any potential purchaser of the property of the existence of this Order and the restrictions in 3 above. Taracorp, Inc. and Trust 454 shall also submit signed certifications that they have recorded the notation specified in this paragraph and a copy of the document in which the notation has been placed to the Remedial Project Manager (RPM) for U.S. EPA and the Project Manager (PM) for IEPA. The Owner Settling Defendants shall record the notation and submit a copy of it to the RPM and PM within sixty (60) calendar days after completion of the Expanded Taracorp File.

5. Sixty (60) calendar days before the start of any remedial construction activity, Settling Defendants shall obtain, and submit to U.S. EPA and IEPA, any additional easements, or other enforceable instruments allowing Settling Defendants use of any other property which is necessary for the implementation of the remedial action required by this Consent Decree.

VI. PERFORMANCE OF THE WORK
BY SETTLING DEFENDANTS

10. Selection of Architect/Engineer and Contractor(s).

a. Engineer. All remedial design work to be performed by Settling Defendants pursuant to this Consent Decree shall be under the direction and supervision of a qualified professional engineer. Selection of any such engineer is subject to approval by U.S. EPA in consultation with the State.

b. Contractor. All remedial action work to be performed by the Settling Defendants pursuant to this Consent Decree shall be under the direction and supervision of a qualified professional engineer. As soon as possible after entry of the Decree, and at least 30 days prior to the date upon which initiation of remedial action work is required under this Decree, the Settling Defendants shall notify U.S. EPA and the State, in writing, of the name, title, and qualifications of the proposed engineer, and the names of principal contractors and subcontractors proposed to be used in carrying out the Work to be performed pursuant to this Consent Decree. Selection of any such engineer or contractor and/or subcontractor shall be subject to approval by the U.S. EPA in consultation with the State.

c. Disapproval of Engineer or Contractor.

If U.S. EPA disapproves of the initial or subsequent selection of an engineer or contractor, Settling Defendants shall submit a list of alternate engineers or contractors to U.S. EPA and the State within 30 days of receipt of the notice of disapproval. Within 14 days from receipt of the list U.S. EPA, in consultation with the State, shall provide written notice of the names of the engineers or contractors on the list of which it approves. Settling Defendants may select any approved architect, engineer or contractor from the list and shall notify U.S. EPA and the State of the name of the person or entity selected within 21 days of receipt of the list. If U.S. EPA does not approve or disapprove of any proposed architect, engineer, or contractor or any proposed list of alternate architects, engineers, or contractors within 14 days and the delay prevents Settling Defendants from meeting one or more deadlines in a plan approved by U.S. EPA pursuant to this decree, Settling Defendants may seek relief under the provisions of Section XIII hereof.

d. Replacement of Architect/Engineer or Contractor.

If at any time Settling Defendants propose to change an architect, engineer or contractor previously approved by U.S. EPA, they shall give written notice to U.S. EPA and the State of the name, title and qualifications of the proposed new architect, engineer or contractor. Such architect, engineer or contractor shall not perform any Work until approval by U.S. EPA, in consultation with the State, has been given.

11. Scope of Work. Appendix 2 to this Consent Decree provides a Scope of Work ("SOW") for the completion of remedial design and remedial action at the Facility. This Scope of Work is incorporated into and made an enforceable part of this Consent Decree.

12. Cleanup and Performance Standards. The Work performed under this Consent Decree shall meet the Performance Standards set forth in Section II of the Scope of Work, which shall include, but are not limited to:

- a. removal of all drums at the Taracorp Pile;
- b. excavation of battery case material at or near the surface of all alleys and driveways in Venice, Eagle Park Acres, and other nearby communities (including areas in ROD Figures 6, 7);
- c. construction of a RCRA complaint cap over the Expanded Taracorp Pile;
- d. implementation of air and groundwater monitoring and remediation, if necessary, as specified in the contingency plans, as approved by U.S. EPA.

The Cleanup Standards described in Section II of the SOW include, but are not limited to:

- a. an Area 1 cleanup standard of 1000/ppm soil lead;
- b. a 500 ppm soil lead and battery case material cleanup standard for all Residential Areas containing concentrations of lead greater than 500 ppm, based on sampling during the remedial design.

13. Work Plan.

a. Within 60 days of the lodging of this Consent Decree, the Settling Defendants shall commence remedial design work by submitting the RD/RA Work Plan to U.S. EPA and the State. RD/RA Work Plan submittals shall include the plans listed in Task I of Section III of the Scope of Work.

Settling Defendants shall not be required to pay any Oversight Costs for U.S. EPA's or the State's review of their work prior to entry of the decree under this paragraph, but following entry shall pay all such Oversight Costs that accrued prior to entry pursuant to Section XVI hereof.

b. Within 60 days of the entry of this Consent Decree, the Settling Defendants shall submit the remaining plans needed to complete the Work. The submittals shall include each of the requirements of Section III, Task II of the Scope of Work.

c. All plans submitted shall be developed in conformance with the ROD, the SOW, U.S. EPA Superfund Remedial Design and Remedial Action Guidance and any additional guidance documents provided by U.S. EPA that are in effect at the time of plan submission. If an applicable U.S. EPA guidance document is changed or is issued which requires modification of plans under development, U.S. EPA may adjust deadlines of such plans as U.S. EPA deems necessary to incorporate such guidance into the plan being developed.

d. All plans shall be subject to review, modification and approval by U.S. EPA, in consultation with the State, in accordance with the procedures set forth in para. 14 below.

e. All approved plans shall be deemed incorporated into and made an enforceable part of this Consent Decree. All work shall be conducted in accordance with the National Contingency Plan, the U.S. EPA Superfund Remedial Design and Remedial Action Guidance, and the requirements of this Consent Decree, including the standards, specifications and schedule contained in the Work Plan.

14. Approval Procedures for Work Plans and Other Documents.

a. Upon review of each work plan or other document required to be submitted and approved by U.S. EPA pursuant to this Decree, and after consultation with the State, the U.S. EPA Remedial Project Manager (the "RPM") shall notify Settling Defendants, in writing, that a document is (1) approved, (2) disapproved, (3) modified by U.S. EPA to cure deficiencies, or (4) returned to Settling Defendants for modification. An explanation shall be provided for any disapproval or required modification.

b. Upon approval or modification of a submission by U.S. EPA, Settling Defendants shall proceed to implement the work required.

c. In the event of partial U.S. EPA disapproval or request for modification by Settling Defendants, the Settling

Defendants shall proceed to implement the work in any approved portions of the submission upon request by U.S. EPA, and shall submit a revised document to U.S. EPA and the State curing the deficiencies within 30 calendar days of receipt of notice from U.S. EPA or such other time as may be agreed to by the parties.

d. Settling Defendants may submit any disapproval, modification, or conditions of approval to which they object, for dispute resolution pursuant to Section XIV hereof. The provisions of Section XIV (Dispute Resolution) and Section XVII (Stipulated Penalties) shall govern the implementation of Work and accrual and payment of any stipulated penalties during dispute resolution. Implementation of non-deficient portions of the submission shall not relieve Settling Defendants of any liability for stipulated penalties under Section XVII.

VII. ADDITIONAL WORK AND MODIFICATION OF THE SOW

15. No Warranty. The provisions of the SOW attached as Appendix 2 reflect the parties' best efforts at the time of execution of this Decree to define the technical work required to perform the remedial action described in the ROD. The Parties acknowledge and agree that approval by U.S. EPA of neither the SOW nor the Work Plan constitutes a warranty or representation of any kind that the SOW or Work Plan will achieve the Cleanup and Performance Standards, and shall not foreclose the United States or the State from seeking compliance with the applicable Cleanup and Performance Standards.

16. Modification of the Scope of Work. The parties recognize that modification of the SOW may be required at some point in the future, e.g. to provide for additional work needed to meet the Clean-up and Performance Standards specified above. In such event, the following procedures shall be followed to amend the SOW:

- a. The party that determines that additional work or other modification of the SOW is necessary shall provide written notice of such determination to the other parties.
- b. The other parties shall respond to such notice in writing within thirty (30) days of receipt or such other time as may be agreed to by the parties.

17. Modification by Agreement. If the parties agree on the modifications to the SOW, the agreement shall be in writing and shall be submitted, along with the amended SOW, for approval of the Court.

18. Dispute Resolution. If the parties do not agree on the proposed modifications, they shall initiate dispute resolution pursuant to Section XIV of this Decree. The scope and standard of review set forth in para. 40 shall govern any judicial determination in such dispute.

VIII. U.S. EPA PERIODIC REVIEW TO
ASSURE PROTECTION OF HUMAN
HEALTH AND THE ENVIRONMENT

19. To the extent required by Section 121(c) of CERCLA, 42 U.S.C. (9621(c)), and any applicable regulations, U.S. EPA, in

consultation with the State, shall review the remedial action at the Facility at least every five (5) years after the entry of this Consent Decree to assure that human health and the environment are being protected by the remedial action being implemented. If upon such review, U.S. EPA determines that further response action is appropriate at the Facility in accordance with Section 104 or 106, then, consistent with Section XVIII of this Consent Decree, the U.S. EPA, in consultation with the State, may take or require such action.

20. Settling Defendants shall be provided with an opportunity to confer with U.S. EPA and the State on any response action proposed as a result of U.S. EPA's 5-year review and to submit written comments for the record. The final decision of U.S. EPA shall be subject to judicial review pursuant to the dispute resolution provisions in Section XIV hereof, if U.S. EPA seeks to require the Settling Defendants to undertake such work.

IX. QUALITY ASSURANCE

21. Settling Defendants shall use quality assurance, quality control, and chain of custody procedures in accordance with U.S. EPA's "Interim Guidelines and Specifications For Preparing Quality Assurance Project Plans" (QAM-005/80) and subsequent amendments to such guidelines upon notification to Settling Defendants of such amendments by U.S. EPA. Amended guidelines shall apply only to procedures conducted after such notification. Prior to the commencement of any monitoring project under this Consent Decree, Settling Defendants shall

submit Quality Assurance Project Plan(s) ("QAPP") to U.S. EPA and the State, consistent with the SOW and applicable guidelines, in accordance with paras. 13-14 hereof. Validated sampling data generated consistent with the QAPP(s) and reviewed and approved by EPA shall be admissible as evidence, without objection, in any proceeding to enforce this Decree. Each laboratory utilized by Settling Defendants in implementing this Consent Decree shall be subject to approval by U.S. EPA and the State. Settling Defendants shall assure that U.S. EPA and State personnel or authorized representatives are allowed access to each such laboratory. In addition, Settling Defendants shall have their laboratory analyze samples submitted by U.S. EPA or the State for quality assurance monitoring.

X. FACILITY ACCESS, SAMPLING, DOCUMENT AVAILABILITY

22. Access to Facility and Other Property Controlled by Settling Defendants. As of the date of lodging of this Consent Decree, the United States and the State, and Settling Defendants' contractors shall have access at all times to the Facility, and shall have access to any other property controlled by or available to Settling Defendants to which access is necessary to effectuate the remedial design or remedial action required pursuant this Decree. Access shall be allowed for the purposes of conducting activities related to this Decree, including but not limited to:

a. Monitoring the Work or any other activities taking place at the Facility;

b. Verifying any data or information submitted to the United States or the State;

c. Conducting investigations relating to contamination at or near the Facility;

d. Obtaining samples;

e. Assessing the need for, planning, or implementing additional response actions at or near the Facility;

f. Inspecting and copying records, operating logs, contracts or other documents maintained or generated by Settling Defendants or their agents, consistent with this Decree and applicable law; or

g. Assessing Settling Defendants' compliance with this Consent Decree.

23. Access to Other Property. To the extent that the Facility or other areas where Work is to be performed hereunder is presently owned by persons other than Settling Defendants, Settling Defendants shall use best efforts to secure from such persons access for Settling Defendants' contractors, the United States, the State, and their authorized representatives, as necessary to effectuate this Consent Decree. If access is not obtained despite best efforts within 30 calendar days of the date of entry of this Decree, Settling Defendants shall promptly notify the United States. The United States thereafter may assist Settling Defendants in obtaining access, to the extent necessary to effectuate the remedial action for the Facility, using such means as it deems appropriate. The United States'

costs in this effort, including attorney's fees and other expenses and any compensation that the United States may be required to pay to the property owner, shall be considered costs of response and shall be reimbursed by Settling Defendants in accordance with Section XVI of this Decree (Reimbursement).

24. Access Authority Retained. Nothing herein shall restrict in any way the United States' access authorities and rights under CERCLA, RCRA or any other applicable statute, regulation or permit.

25. Sampling Availability. Settling Defendants shall make available to U.S. EPA and the State the results of all sampling and/or tests or other data generated by Settling Defendants with respect to the implementation of this Consent Decree. U.S. EPA and the State, upon request, shall make available to the Settling Defendants the results of sampling and/or tests or other data generated by U.S. EPA, the State, or their contractors.

26. Split Samples. Upon request, a party taking samples shall allow other parties and/or their authorized representatives to take split or duplicate samples. The party taking samples shall give at least 14 days prior notice of sample collection activity to the other parties.

XI. REPORTING REQUIREMENTS

27. Monthly Progress Reports. Settling Defendants shall prepare and provide to the United States and the State written monthly progress reports which: (1) describe the actions which have been taken toward achieving compliance with this Consent

Decree during the previous month, and attach copies of appropriate supporting documentation such as invoices, contract documents and photographs; (2) include all results of sampling and tests and all other data received by Settling Defendants during the course of the work which has passed quality assurance and quality control procedures; (3) include all plans and procedures completed under the RD/RA Work Plan during the previous month; (4) describe all actions, data and plans which are scheduled for the next month and provide other information relating to the progress of construction; (5) include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of RD/RA Scope of Work or Work Plan, and a description of efforts made to mitigate those delays or anticipated delays. Progress reports are to be submitted to U.S. EPA and the State by the tenth day of every month following the effective date of this Consent Decree.

28. Other Reporting Requirements. Settling Defendants shall submit reports, plans and data required by the SOW, the RD/RA Work Plan or other approved plans in accordance with the schedules set forth in such plans.

29. Reports of Releases. Upon the occurrence of any event during performance of the Work which, pursuant to Section 103 of CERCLA, requires reporting to the National Response Center, Settling Defendants shall promptly orally notify the U.S. EPA Remedial Project Manager ("RPM") or On-Scene Coordinator ("OSC"),

or in the event of the unavailability of the U.S. EPA RPM, the Emergency Response Section, Region V, United States Environmental Protection Agency, in addition to the reporting required by Section 103. Within 20 days of the onset of such an event, Settling Defendants shall furnish to the United States and the State a written report setting forth the events which occurred and the measures taken, and to be taken, in response thereto. Within 30 days of the conclusion of such an event, Settling Defendants shall submit a report setting forth all actions taken to respond thereto.

30. Annual Report. Settling Defendants shall submit each year, within thirty (30) days of the anniversary of the entry of the Consent Decree, a report to the Court and the parties setting forth the status of response actions at the Facility, which shall include at a minimum a statement of major milestones accomplished in the preceding year, a statement of tasks remaining to be accomplished, and the schedule for implementation of the remaining Work.

XII. REMEDIAL PROJECT MANAGER/PROJECT COORDINATORS

31. Designation/Powers. U.S. EPA shall designate a Remedial Project Manager ("RPM") and/or an On Scene Coordinator ("OSC") and the IEPA shall designate a Project Manager (PM) for the Facility, and they may designate other representatives, including U.S. EPA and State employees, and federal and state contractors and consultants, to observe and monitor the progress of any activity undertaken pursuant to this Consent Decree. The

RPM/OSC shall have the authority lawfully vested in an RPM/OSC by the National Contingency Plan, 40 CFR Part 300. In addition, the RPM/OSC shall have the authority to halt any work required by this Consent Decree and to take any necessary response action when conditions at the Facility may present an imminent and substantial endangerment to public health or welfare or the environment. Settling Defendants shall also designate a Project Coordinator who shall have primary responsibility for implementation of the Work at the Facility.

32. Communications. To the maximum extent possible, except as specifically provided in the Consent Decree, communications between Settling Defendants, the State and U.S. EPA concerning the implementation of the work under this Consent Decree shall be made between the Project Coordinators and the RPM/OSC.

33. Identification of Personnel. Within twenty (20) calendar days of the effective date of this Consent Decree, Settling Defendants, IEPA, and U.S. EPA shall notify each other, in writing, of the name, address and telephone number of the designated Project Manager and an Alternate Project Manager, and the RPM/OSC and Alternate RPM/OSC. If the identity of any these persons changes, notice shall be given to the other parties at least five (5) business days before the changes become effective.

XIII. FORCE MAJEURE

34. Definition. "Force Majeure" for purposes of this Consent Decree is defined as any event arising from causes beyond the control of Settling Defendants which delays or prevents the

performance of any obligation under this Consent Decree notwithstanding Settling Defendants' best efforts to avoid the delay. Increased costs or expenses or non-attainment of the Performance or Clean-Up Standards shall not constitute "force majeure" events.

35. Notice to RPM Required. When circumstances occur which may delay the completion of any phase of the Work or delay access to the Facility or to any property on which any part of the Work is to be performed, whether or not caused by a "force majeure" event, Settling Defendants shall promptly notify the RPM and the State Project Coordinator by telephone, or in the event of their unavailability, the Director of the Waste Management Division of U.S. EPA. Within twenty (20) days of the event which Settling Defendants contend is responsible for the delay, Settling Defendants shall supply to the United States and the State in writing the reason(s) for and anticipated duration of such delay, the measures taken and to be taken by Settling Defendants to prevent or minimize the delay, and the timetable for implementation of such measures. Failure to give such oral notice and written explanation in a timely manner shall constitute a waiver of any claim of force majeure.

36. If U.S. EPA agrees that a delay is or was attributable to a "force majeure" event, the Parties shall modify the SOW or RD/RA Work Plan to provide such additional time as may be necessary to allow the completion of the specific phase of Work and/or any succeeding phase of the Work affected by such delay.

37. If U.S. EPA does not agree with Settling Defendants that the reason for the delay was a "force majeure" event, that the duration of the delay is or was warranted under the circumstances, or that the length of additional time requested by Settling Defendants for completion of the delayed work is necessary, U.S. EPA shall so notify Settling Defendants in writing. Settling Defendants shall initiate a formal dispute resolution proceeding under para. 39 below no later than 15 days after receipt of such notice. In such a proceeding, Settling Defendants have the burden of proving that the event was a force majeure, that best efforts were exercised to avoid and mitigate the effects of the delay, that the duration of the delay is or was warranted, that the additional time requested for completion of the Work involved is necessary to compensate for the delay, and that the notice provisions of para. 35 were complied with.

XIV. DISPUTE RESOLUTION

38. The Parties to this Consent Decree shall attempt to resolve expeditiously any disagreements concerning the meaning, application or implementation of this Consent Decree. Any party seeking dispute resolution first shall provide the other parties with an "Informal Notice of Dispute" in writing and request an informal dispute resolution period, which shall not exceed thirty (30) days.

39. If the dispute is not resolved within the informal discussion period, any party may initiate formal dispute resolution by giving a written "Formal Notice of Dispute" to the

other parties no later than the 15th day following the conclusion of the informal dispute resolution period. A party shall seek formal dispute resolution prior to the expiration of the informal discussion period where the circumstances require prompt resolution.

40. Formal dispute resolution for disputes pertaining to the selection or adequacy of remedial design or remedial action (including the selection and adequacy of any plans which are required to be submitted for government approval under this Decree and the adequacy of Work performed) shall be conducted according to the following procedures:

a. Within ten (10) days of the service of the Formal Notice of Dispute pursuant to the preceding paragraph, or such other time as may be agreed to by the parties, the party who gave the notice shall serve on the other parties to this Decree a written statement of the issues in dispute, the relevant facts upon which the dispute is based, and factual data, analysis or opinion supporting its position (hereinafter the "Statement of Position"), and shall provide copies of all supporting documentation on which such party relies.

b. Opposing parties shall serve their Statements of Position and copies of supporting documentation within twenty (20) days after receipt of the complaining party's Statement of Position or such other time as may be agreed to by the parties.

c. U.S. EPA shall maintain an administrative record of any dispute governed by this paragraph. The record shall include

the Formal Notice of Dispute, the Statements of Position, all supporting documentation submitted by the parties, and any other material on which the U.S. EPA decisionmaker relies for the administrative decision provided for below. The record shall be available for inspection and copying by all parties. The record shall be closed no less than ten (10) days before the administrative decision is made, and U.S. EPA shall give all parties prior notice of the date on which the record will close.

d. Upon review of the administrative record U.S. EPA shall issue a final decision and order resolving the dispute.

e. Any decision and order of U.S. EPA pursuant to subparagraph d. shall be reviewable by this Court, provided that a Notice of Judicial Appeal is filed within 10 days of receipt of U.S. EPA's decision and order. Judicial review will be conducted on U.S. EPA's administrative record and U.S. EPA's decision shall be upheld unless it is demonstrated to be arbitrary and capricious or in violation of law.

41. Judicial dispute resolution for any issues not governed by the preceding paragraph may be initiated by petition to the Court and shall be governed by the Federal Rules of Civil Procedure. Except as specifically provided in other provisions of this Decree, e.g. Section XIII, this Decree does not establish procedures or burdens of proof for such dispute resolution proceedings.

42. The invocation of the procedures stated in this Section shall not extend or postpone Settling Defendants' obligations

under this Consent Decree with respect to the disputed issue unless and until U.S. EPA agrees otherwise. EPA's position on an issue in dispute shall control until such time as the Court orders otherwise in accordance with the provisions of this Section.

43. Any applicable Stipulated Penalties continue to accrue during dispute resolution, as provided in Section XVII hereof. Settling Defendants may seek forgiveness of stipulated penalties that accrue during dispute resolution by petition to U.S. EPA and/or the Court pursuant to para. 62. below.

44. Upon the conclusion of any formal or informal dispute resolution under this Section which has the effect of nullifying or altering any provision of the RD/RA Work Plan or any other plan or document submitted and approved pursuant to this Decree, Settling Defendants shall submit an amended plan, in accordance with the decision, to U.S. EPA within fifteen (15) days of receipt of the final order or decision. Amendments of the SOW as a result of dispute resolution proceedings are governed by Section VII above. Amendments of a plan or other document as a result of dispute resolution shall not alter any dates for performance unless such dates have been specifically changed by the order or decision. Extension of one or more dates of performance in the order or decision does not extend subsequent dates of performance for related or unrelated items of Work unless the order or decision expressly so provides or the parties so agree.

XV. RETENTION AND AVAILABILITY OF INFORMATION

45. Settling Defendants shall make available to U.S. EPA and the State and shall retain the following documents until 6 years following the third "five-year review" conducted for the Facility pursuant to Section 121(c) of CERCLA (or the final review, if there are fewer than three reviews): all records and documents in their possession, custody, or control which relate to the performance of this Consent Decree, including, but not limited to, documents reflecting the results of any sampling, tests, or other data or information generated or acquired by any of them, or on their behalf, with respect to the Facility and all documents pertaining to their own or any other person's liability for response action or costs under CERCLA. After this period of document retention, Settling Defendants shall notify U.S. DOJ, U.S. EPA and the State at least ninety (90) calendar days prior to the destruction of any such documents, and upon request by U.S. EPA or the State, Settling Defendants shall relinquish custody of the documents to U.S. EPA or the State.

46. Settling Defendants may assert business confidentiality claims covering part or all of the information provided in connection with this Consent Decree in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. (9604(e)(7)), and pursuant to 40 CFR (2.203(b) and applicable State law. Information determined to be confidential by U.S. EPA will be afforded the protection specified in 40 CFR Part 2, Subpart B and, if determined to be entitled to confidential treatment under State law by the State,

afforded protection under State law by the State. If no such claim accompanies the information when it is submitted to U.S. EPA and the State, the public may be given access to such information without further notice to Settling Defendants.

47. Information acquired or generated by Settling Defendants in performance of the Work that is subject to the provisions of Section 104(e)(7)(F) of CERCLA, 42 U.S.C. (9604(e)(7)(F)), shall not be claimed as confidential by Settling Defendants.

48. In the event that Settling Defendants' obligation to produce documents under this Section includes documents which are privileged from disclosure as attorney-client communications, attorney work-product or other privilege recognized by law, Settling Defendants may seek to withhold production of such documents to avoid improper disclosure. At the time production is requested, Settling Defendants must provide the United States and the State all information necessary to determine whether the document is privileged, including such information as is generally required under the Federal Rules of Civil Procedure. If the United States does not agree with the Settling Defendant's claim of privilege, Settling Defendants may seek protection of the documents from the Court. Settling Defendants shall not withhold as privileged any information or documents that are created, generated or collected pursuant to requirements of this Decree, regardless of whether the document has been generated in the form of an attorney-client communication or other generally

privileged manner. Settling Defendants may not withhold as privileged any documents that are subject to the public disclosure provision of Section 104(e)(7)(F) of CERCLA, 42 U.S.C. (9604(e)(7)(F)).

XVI. REIMBURSEMENT

49. a. Within 45 days of the entry of this Consent Decree, Settling Defendants shall pay Seventy-Five Thousand Dollars (\$75,000.00) to the EPA Hazardous Substances Superfund, plus interest accrued on that amount since October 25, 1990, at the rate of interest specified in 31 USC 3717. Payment shall be delivered to the U.S. EPA, Superfund Accounting, P.O. Box 70753, Chicago, Illinois 60673 in the form of a certified or cashier check payable to "EPA Hazardous Substances Superfund," and referencing CERCLA Number K7 and DOJ Case Number 90-11-3-608. A copy of such check shall be sent to the Director, Waste Management Division, U.S. EPA, Region V and to the Assistant Attorney General, Environment and Natural Resources Division, U.S. Department of Justice, at the addresses provided in Section XXI (Notices). This payment is for reimbursement of past costs claimed by the United States in this action through May 31, 1990.

b. Settling Defendants shall pay to U.S. EPA the cost of conducting a Blood Lead study. The United States shall submit its claim for costs associated with the Blood Lead study as soon as practical after completion of the study. Payment shall be made in the manner describe in paragraph A above.

c. Settling Defendants shall pay within forty-five (45) days of the entry of this Consent Decree, _____ dollars (\$_____) to the State for its past response costs. Payment shall be made by means of a check made payable to " _____ " and delivered to the Attorney General of the State.

50. Settling Defendants shall pay all response costs incurred by the United States and the State after the date[s] set forth in the preceding paragraph (hereinafter referred to collectively as "Future Response Costs"), including all Oversight Costs, all costs of access required to be paid pursuant to Section X hereof, and all costs incurred in enforcing this decree.

51. The United States and the State shall submit their claim[s] for Future Response Costs incurred up to the date of entry of the Decree as soon as practicable after entry of the Decree. Claims for Future Costs shall be submitted periodically by U.S. EPA, as practicable. Payments shall be made, as specified in para. 49 above, within 30 days of the submission of the above claims. Settling Defendants may inspect the United States' cost documentation upon request.

52. Settling Defendants may agree among themselves as to the apportionment of responsibility for the payments required by this Section, but their liability to the United States and the State for these payments shall be joint and several.

XVII. STIPULATED PENALTIES

53. Settling Defendants shall pay stipulated penalties in the amounts set forth below to the United States for each failure to complete any requirement of this Consent Decree and Section III of the SOW in an acceptable manner and within the time schedules specified in the SOW, the RD/RA Work Plan or in other plans submitted and approved under this Consent Decree.

| | | <u>PENALTY</u> | | |
|-----|--|--------------------------|--------------------------|-------------------------|
| | | <u>UP TO 30 DAYS</u> | <u>UP TO 60 DAYS</u> | <u>OVER 60 DAYS</u> |
| 1. | Blood Testing Program Plan | \$5,000 | \$10,000 | \$15,000 |
| 2. | Quality Assurance | \$5,000 | \$10,000 | \$15,000 |
| | Project Plan and Sampling and Analysis | \$5,000 | \$10,000 | \$15,000 |
| 3. | Home Inspection and Fugitive Dust Control Plan | \$5,000 | \$10,000 | \$15,000 |
| 4. | A Plan for Satisfaction of Permitting and Access Requirements | \$5,000 | \$10,000 | \$15,000 |
| 5. | Air, Groundwater, and Soil Cover/Cap Contngency Plans | \$5,000 | \$10,000 | \$15,000 |
| 6. | Design Plans and Specifications | \$5,000 | \$10,000 | \$15,000 |
| 7. | Cost Estimate | \$5,000 | \$10,000 | \$15,000 |
| 8. | Project Schedule | \$5,000 | \$10,000 | \$15,000 |
| 9. | Construction Quality Assurance Plan | \$5,000 | \$10,000 | \$15,000 |
| 10. | Health and Safety | \$5,000 | \$10,000 | \$15,000 |

Plan/Emergency
Contingency Plan

UP TO
30 DAYS

UP TO
60 DAYS

OVER
60 DAYS

\$10,000

\$15,000

\$20,000

11. Failure to meet each milestone for implementation of the Work specified in the Work Plan(s), as approved by U.S. EPA, which at a minimum shall include:
- a. Taracorp drum removal;
 - b. consolidation of the SLLR Piles with the Taracorp Pile;
 - c. excavation/removal of battery casing material from Venice and Eagle Park Acres;
 - d. excavation/removal of contaminated soils from Area 1;
 - e. excavation/removal of contaminated soils from Residential Areas, including Areas 2-8;
 - f. completion of the cap on the Expanded Taracorp Pile;
 - g. implementation of contingency plans;
 - h. implementation of other contingency measure.

54. All penalties begin to accrue on the day after complete performance is due or the day a violation occurs, and continue to accrue through the final day of correction of the noncompliance or completion of performance. Any modifications of the time for performance shall be in writing and approved by U.S. EPA.

Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

55. Following U.S. EPA's determination that Settling Defendants have failed to comply with the requirements of this Consent Decree, U.S. EPA shall give Settling Defendants written notification of the same and describe the non-compliance. This notice shall also indicate the amount of penalties due. However, penalties shall accrue as provided in the preceding paragraph regardless of whether U.S. EPA has notified Settling Defendants of a violation.

56. All penalties owed to the United States under this Section shall be payable within 30 days of receipt of the notification of non-compliance, unless Settling Defendants invoke the dispute resolution procedures under Section XIV.

57. Settling Defendants may dispute the United States' right to the stated amount of penalties on the grounds that the violation is excused by the Force Majeure provisions of Section XIII or that it is based on a mistake of fact. The dispute resolution procedures under Section XIV shall be followed for such a dispute.

58. Neither the filing of a petition to resolve a dispute nor the payment of penalties shall alter in any way Settling Defendants' obligation to continue and complete the performance required hereunder.

59. Penalties shall continue to accrue as provided in para. 55 during the dispute resolution period, but need not be paid until the following decision points:

a. If the dispute is resolved by agreement or by decision or order of U.S. EPA which is not appealed to this Court, accrued penalties shall be paid to U.S. EPA and IEPA within fifteen (15) days of the agreement or the receipt of U.S. EPA decision or order;

b. If the dispute is appealed to this Court, accrued penalties shall be paid to U.S. EPA and IEPA within fifteen (15) days of receipt of the Court's decision or order, except as provided in subparagraph c below;

c. If the District Court's decision is appealed by any party, Settling Defendants shall pay all accrued penalties into an interest-bearing escrow account within fifteen (15) days of receipt of the Court's decision or order. Penalties shall be paid into this account as they continue to accrue, at least every sixty (60) days. Within fifteen (15) days of receipt of the appellate court decision, the escrow agent shall pay the balance of the account to U.S. EPA, IEPA, and/or to Settling Defendants to the extent that they prevail, as determined pursuant to the following paragraph.

60. Settling Defendants shall not owe stipulated penalties for any items upon which they prevail in dispute resolution. Settling Defendants shall request a specific determination at each stage of dispute resolution as to the issues and items upon which they have prevailed and as to the amount of any stipulated penalties owed.

61. Notwithstanding the above provisions, the Settling Defendants shall have the right to petition the Court or U.S. EPA (according to the level of dispute resolution reached) for forgiveness of stipulated penalties that accrue during dispute resolution for items upon which they did not prevail, based on a finding (1) that the delay in work or other violation that caused the stipulated penalty to accrue was necessary and appropriate during the dispute resolution proceeding (2) that Settling Defendants' position regarding the dispute had substantial support in law and fact and reasonably could have been expected

to prevail, considering the applicable standard of review, and (3) that Settling Defendants sought dispute resolution at the earliest practicable time and took all other appropriate steps to avoid any delay in remedial action work as a result of the dispute. If the Court or U.S. EPA so finds, they may grant an appropriate reduction in the stipulated penalties that accrued during the dispute resolution period. Settling Defendants shall have the burdens of proof and persuasion on any petition submitted under this provision.

62. Interest shall begin to accrue on the unpaid balance of stipulated penalties on the day following the date payment is due. Pursuant to 31 U.S.C. (3717, interest shall accrue on any amounts overdue at a rate established by the Department of Treasury for any period after the date of billing. A handling charge will be assessed at the end of each 30 day late period, and a six percent per annum penalty charge will be assessed if the penalty is not paid within 90 days of the due date. Penalties shall be paid as specified in para. 49 hereof.

63. If Settling Defendants fail to pay stipulated penalties, the United States or the State may institute proceedings to collect the penalties. In any such proceeding, penalties shall be paid as provided in para. 49 above.

64. Notwithstanding any of the above provisions, U.S. EPA may elect to assess civil penalties and/or to bring an action in U.S. District Court pursuant to Section 109 of CERCLA to enforce the provisions of this Consent Decree. Payment of stipulated

penalties shall not preclude U.S. EPA from electing to pursue any other remedy or sanction to enforce this Consent Decree, and nothing shall preclude U.S. EPA from seeking statutory penalties against Settling Defendants for violations of statutory or regulatory requirements.

XVIII. COVENANT NOT TO SUE

65. Except as otherwise specifically provided in the following paragraph or elsewhere in this Decree, the United States and the State covenant not to sue the Settling Defendants for Covered Matters. Covered Matters shall mean any and all claims available to the United States under Sections 106 and 107 of CERCLA and Section 7003 of RCRA relating to the Facility, and any and all claims available to the State under state statute and common law nuisance. With respect to future liability, this covenant not to sue shall take effect upon certification by U.S. EPA of the completion of the remedial action concerning the Facility pursuant to Section XXVI below.

66. "Covered Matters" does not include:

- a. Liability arising from hazardous substances removed from the Facility;
- b. Natural resource damages;
- c. Criminal liability;
- d. Claims based on a failure by the Settling Defendants to meet the requirements of this Consent Decree;
- e. Any matters for which the United States is owed indemnification under Section XIX hereof; or

- f. Liability for violations of Federal or State law which occur during implementation of the remedial action.
- g. Any release of hazardous substances not derived directly from operations conducted by NL Industries and/or Taracorp, Inc.
- h. Liability for areas where work is prevented from being performed due to the occurrence of a force majeure event.

67. Notwithstanding any other provision in this Consent Decree, (1) the United States reserves the right to institute proceedings in this action or in a new action or to issue an Order seeking to compel the Settling Defendants to perform any additional response work at the Facility, and (2) the United States and the State reserve the right to institute proceedings in this action or in a new action seeking to reimburse the United States for its response costs and to reimburse the State for its matching share of any response action undertaken by U.S. EPA and/or the State under CERCLA, relating to the Facility, if:

a. for proceedings prior to U.S. EPA certification of completion of the remedial action concerning the Facility,

(i) conditions at the Facility, previously unknown to the United States or the State, are discovered after the entry of this Consent Decree, or

(ii) information is received, in whole or in part, after the entry of this Consent Decree,

and these previously unknown conditions or this information indicates that the remedial action is not protective of human health and the environment; and

b. for proceedings subsequent to U.S. EPA certification of completion of the remedial action concerning the Facility,

(i) conditions at the Facility, previously unknown to the United States or the State, are discovered after the certification of completion by U.S. EPA, or

(ii) information is received, in whole or in part, after the certification of completion by U.S. EPA,

and these previously unknown conditions or this information indicates that the remedial action is not protective of human health and the environment.

68. For purposes of subpara. a. of the preceding paragraph, the information received by and the conditions known to the United States and the State is that information and those conditions set forth in the Record of Decision (the "ROD") attached as Appendix 1 hereto or in documents contained in U.S. EPA's administrative record supporting the ROD. For purposes of subpara. b. of the preceding paragraph, the information received by and the conditions known to the United States and the State is that information and those conditions set forth in the ROD, the administrative record supporting the ROD, or in reports or other documents submitted to U.S. EPA pursuant to this Consent Decree or generated by U.S. EPA in overseeing this Consent Decree prior to certification of completion.

69. Notwithstanding any other provisions in this Consent Decree, the covenant not to sue in this Section shall not relieve the Settling Defendants of their obligation to meet and maintain compliance with the requirements set forth in this Consent Decree, including the conditions in the ROD, which are incorporated herein, and the United States reserves its rights to take response actions at the Facility in the event of a breach of the terms of this Consent Decree and to seek recovery of costs incurred after entry of the Consent Decree: 1) resulting from such a breach; 2) relating to any portion of the Work funded or performed by the United States; or 3) incurred by the United States as a result of having to seek judicial assistance to remedy conditions at or adjacent to the Facility.

70. Settling Defendants hereby release and waive any rights to assert any claims against the United States or the State and any agency of the United States or the State relating to the Facility.

71. Nothing in this Consent Decree shall constitute or be construed as a release or a covenant not to sue regarding any claim or cause of action against any person, firm, trust, joint venture, partnership, corporation or other entity not a signatory to this Consent Decree for any liability it may have arising out of or relating to the Facility. The United States and the State expressly reserve the right to continue to sue any person, other than the Settling Defendants, in connection with the Facility.

XIX. INDEMNIFICATION; OTHER CLAIMS

72. Settling Defendants agree to indemnify, save and hold harmless the United States, the State and/or their representatives from any and all claims or causes of action arising from the acts or omissions of Settling Defendants and/or their representatives, including contractors and subcontractors, in carrying out the activities pursuant to this Consent Decree. The United States and the State shall notify Settling Defendants of any such claims or actions promptly after receipt of notice that such a claim or action is anticipated or has been filed.

73. The United States and the State do not assume any liability of Settling Defendants by virtue of entering into this agreement or by virtue of any designation that may be made of Settling Defendants as U.S. EPA's representatives under Section 104(e) of CERCLA for purposes of carrying out this Consent Decree. The United States and the State are not to be construed as parties to any contract entered into by Settling Defendants in carrying out the activities pursuant to this Consent Decree. The proper completion of the Work under this Consent Decree is solely the responsibility of Settling Defendants.

74. Settling Defendants waive their rights to assert any claims against the Hazardous Substances Superfund under CERCLA or the State's Hazardous Waste Fund that are related to any costs incurred in the Work performed pursuant to this Consent Decree, and nothing in this Consent Decree shall be construed as U.S. EPA's preauthorization of a claim against the Superfund.

XX. INSURANCE/FINANCIAL RESPONSIBILITY

75. For the duration of this Consent Decree, Settling Defendants shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing work on behalf of Settling Defendants in furtherance of this Consent Decree. Prior to commencement of the Work at the Facility, Settling Defendants shall provide U.S. EPA and the State with a certificate of insurance and a copy of the insurance policy. If Settling Defendants demonstrate by evidence satisfactory to the United States and the State that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then with respect to that contractor or subcontractor Settling Defendants need provide only that portion of the insurance described above which is not maintained by the contractor or subcontractor.

76. Settling Defendants shall provide financial security, in the amount of \$25,000,000, in one of the forms permitted under 40 C.F.R. 264.145, to assure completion of the Work at the Facility.

XXI. NOTICES

77. Whenever, under the terms of this Consent Decree, notice is required to be given, a report or other document is required to be forwarded by one party to another, or service of any papers or process is necessitated by the dispute resolution

provisions of Section XIV hereof, such correspondence shall be directed to the following individuals at the addresses specified below:

As to the United States or
U.S. EPA:

a. Regional Counsel
Attn: NL Industries/Tara-
corp-Granite City
Coordinator (5CS)
U.S. Environmental
Protection Agency
230 S. Dearborn Street
Chicago, Illinois 60604

b. Director, Waste Management
Division

Attn: NL Industries/Taracorp
Remedial Project Manager (5HS-11)
U.S. Environmental Protection
Agency
230 S. Dearborn Street
Chicago, Illinois 60604

c. Assistant Attorney General
Environment & Natural
Resources Division
U.S. Department of Justice
10th & Pennsylvania Ave., N.W.
Washington, D.C. 20530
Ref. D.J. # 90-11-3-608

As to the State of Illinois:

a. Attorney General
State of Illinois
Attn: NL Industries/Tara-
corp-Granite City
Coordinator

b. Director, Illinois
Environmental Protection
Agency

As to Settling Defendants:

XXII. CONSISTENCY WITH NATIONAL CONTINGENCY PLAN

78. The United States and the State agree that the Work and additional work if any, if properly performed, is consistent with the provisions of the National Contingency Plan.

XXIII. ENDANGERMENT AND EMERGENCY RESPONSE

79. In the event of any action or occurrence during the performance of the Work which causes or threatens a release of a hazardous substance into the environment which presents or may present an imminent and substantial endangerment to public health or welfare or the environment, Settling Defendants shall immediately take all appropriate action to prevent, abate, or minimize such release and endangerment, and shall immediately notify the RPM or, if the RPM is unavailable, the U.S. EPA Emergency Response Section, Region V, U.S. EPA. Settling Defendants shall take such action in accordance with all applicable provisions of the Health and Safety/Contingency Plan developed pursuant to the SOW and approved by U.S. EPA. In the event that Settling Defendants fail to take appropriate response action as required by this paragraph and U.S. EPA or the State takes such action instead, Settling Defendants shall reimburse all costs of the response action not inconsistent with the NCP. Payment of such response costs shall be made in the manner provided in Section XVI hereof.

80. Nothing in the preceding paragraph or in this Consent Decree shall be deemed to limit the response authority of the United States under 42 U.S.C. (9604.

XXIV. COMMUNITY RELATIONS

81. Settling Defendants shall cooperate with U.S. EPA and the State in providing information regarding the progress of remedial design and remedial action at the Facility to the

public. As requested by U.S. EPA or the State, Settling Defendants shall participate in the preparation of all appropriate information disseminated to the public and in public meetings which may be held or sponsored by U.S. EPA or the State to explain activities at or concerning the Facility.

XXV. RETENTION OF JURISDICTION; MODIFICATION

82. Retention of Jurisdiction. This Court will retain jurisdiction for the purpose of enabling any of the Parties to apply to the Court at any time for such further order, direction, or relief as may be necessary or appropriate for the construction or modification of this consent Decree, or to effectuate or enforce compliance with its terms, or to resolve disputes in accordance with Section XIV hereof.

83. Modification. No material modification shall be made to this Consent Decree without written notification to and written approval of the parties and the Court except as provided below or in Section VII (Modification of the Scope of Work; Additional Work). The notification required by this Section shall set forth the nature of and reasons for any requested modification. No oral modification of this Consent Decree shall be effective. Nothing in this paragraph shall be deemed to alter the Court's power to supervise or modify this Consent Decree.

**XXVI. EFFECTIVE DATE AND CERTIFICATION OF COMPLETION
OF REMEDY**

84. This Consent Decree shall be effective upon the date of its entry by the Court, except to the extent provided in para. 13 regarding the commencement of remedial design upon lodging.

85. Certification of Completion of Remedial Action.

a. Application. When the Settling Defendants believe that the soil lead cleanup, the consolidation and capping of the Expanded Taracorp Pile, and all other elements of the work to be performed as stated in this Consent Decree and the Scope of Work have been completed and that a demonstration of compliance with Cleanup and Performance Standards has been made in accordance with this Consent Decree, they shall submit to the United States and the State a Notification of Completion of Remedial Action and a final report which summarizes the work done, any modification made to the SOW or Work Plan(s) thereunder relating to the Cleanup and Performance Standards, and data demonstrating that the Cleanup and Performance Standards have been achieved. The report shall be prepared and certified as true and accurate by a registered professional engineer and the Settling Defendants' Project Coordinator, and shall include appropriate supporting documentation.

b. Certification. Upon receipt of the Notice of Completion of Remedial Action, U.S. EPA shall review the final report and supporting documentation, and the remedial actions taken. U.S. EPA, in consultation with the State, shall issue a Certification of Completion of Remedial Action upon a determination that Settling Defendants have completed the soil

lead cleanup and the consolidation and capping of the Taracorp pile in accordance with the terms of this Consent Decree and demonstrated compliance with Cleanup and Performance Standards, and that no further corrective action is required.

c. Post-Certification Obligations. Following Certification, Settling Defendants shall continue to monitor air, water, and cap or soil cover quality for a minimum of thirty (30) years, as described in the SOW. Settling Defendants shall take remedial action pursuant to the remedial action contingency plan developed in the event that concentrations of contaminants in ground water or lead in air exceed applicable standards or established action levels.

86. Effect of Settlement. The entry of this Consent Decree shall not be construed to be an acknowledgment by the parties that the release or threatened release concerned constitutes an imminent and substantial endangerment to the public health or welfare or the environment. Except as provided in the Federal Rules of Evidence, the participation by any party in this decree shall not be considered an admission of liability for any purpose, and the fact of such participation shall not be admissible in any judicial or administrative proceeding (except a proceeding to enforce this decree), as provided in Section 122(d)(1)(B) of CERCLA.

ENTERED this ____ day of _____, 1990.

U.S. District Judge

The parties whose signatures appear below hereby consent to the terms of this Consent Decree. The consent of the United States is subject to the public notice and comment requirements of Section 122(i) of CERCLA and 28 CFR 50.7.

UNITED STATES OF AMERICA

Frederick J. Hess
United States Attorney
Southern District of Illinois

By: _____

Assistant United States Attorney
Southern District of Illinois

By: _____

Richard B. Stewart
Assistant Attorney
General
Environment & Natural
Resources Division
U.S. Department of Justice
Washington, D.C. 20530

Date: _____

By: _____

Valdas V. Adamkus
Regional Administrator
U.S. EPA, Region V

Date: _____

By: _____

Steven Siegel
Assistant Regional Counsel
U.S. EPA, Region V

Date: _____

PEOPLE OF THE STATE OF ILLINOIS
Neil F. Hartigan, Attorney General

By: _____
Shawn W. Denney
First Assistant Attorney General

Date: _____

ILLINOIS ENVIRONMENTAL PROTECTION
AGENCY

By: _____
Bernard P. Killian
Director of the IEPA

Date: _____

The undersigned Settling Defendant hereby consents to the foregoing Consent Decree in U.S. v. NL INDUSTRIES, Inc., et al.

NAME OF SETTling DEFENDANT (Type)

Address

By:

Name of Officer (Type)

(Signature of officer)

Title

(Place corporate seal and acknowledgment of authority of officer to sign here)

If different from above, the following is the name and address of this Settling Defendant's agent for service of process:

Name

Address

Prior Notice to all parties shall be provided by Settling Defendant of any change in the identity or address of the Settling Defendant or its agent for service of process.

LIST OF APPENDICES

Appendix 1 - Record of Decision

Appendix 2 - Scope of Work